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VOL. XIX—No. 1 HUNTINGTON, W. VA. JANUARY, 1924

A RATIONAL TREATMENT OF PNEUMONIA

By ALBERT H. HOGE, M. D.
St. Luke's Hospital, Bluefield, W. Va.

Read before Mercer County Medical Society February, 1923.

Just so long as a disease continues to show such a high mortality as pneumnoia one feels justified in offering some few suggestions in its treatment. With the exception of the type one variety of pneumonia there is no serum or vaccine available today that could be classed in any way as a specific. In fact there have been very few specifics discovered in all the history of medicine. We must of necessity depend largely upon the symptomatic treatment of diseases as has been the custom in the past.

A great many of these cases will recover if put to bed even if no other treatment is instituted. We attempt to keep this fact very prominently in our mind in treating all our patients, everything being done to lessen or remove his burdens.

The outstanding symptom in pneumonia is difficult breathing. It would be well to consider the cause of this first. The consolidation of the lung cannot be the only factor for all of us have seen cases with only part of one lung involved with very rapid breathing, while on the other hand after the crisis is past dyspnea may cease with no change whatever in the lung. We must seek then some exxplanation other than an anatomic one. There are several things that may cause this, one of which is the increased metabolism, as it is a well recognized fact that there is a marked increase in practically all fevers. The metabolism then of the pneumonia patient will be greater even at complete rest than it would when he was well.

The metabolic, however, is not necessarily the only factor calling for hyperpnea. Another possible one is acidosis. If blood alkali is used up in combination with acid, in or-

der to preserve blood reaction at its normal point, the carbon dioxid tension of the blood must be reduced. This can only be accomplished by reducing the alveolar carbon dioxid tension through increasing pulmonary ventilation. In general terms it may be said that to lower the alveolar carbon dioxid tension to half its original level, the ventilation must be doubled.[1]

A third possible cause for hyperpnea, which has been suggested by Pearce,[2] and which may at times be present in pneumonia, is an insufficient circulation rate of blood flow. To a certain extent, however, as Pearce shows, an insufficient response on the part of the circulation can be offset by an increased response on the part of the ventilation, super-ventilation as he calls it. From this it would follow that in an individual whose circulation rate did not increase parallel with his metabolism, dyspnea would occur at an earlier point, because of the superventilation which compensated for the insufficient blood flow. In a pneumonia patient with poor heart action and an insufficient blood flow, we might have a need for hyperpnea from circulatory causes.

A fourth cause for hyperpnea is anoxemia,[3] or deficient oxygen saturation of the blood as it passes through the lungs. Such a condition is frequently found in pneumonia and may result from the admixture of aerated and unaerated blood or from an imperfect aeration of the entire blood mass as it passes through the lungs. The former might result from consolidation or localized edema, the latter from generalized edema or from the presence of exudate or foam in the air passages.

To summarize the morbid physiology of pneumonia, then, we may say that in pneumonia the lungs need more ventilation than normally for either or all of the following causes: (1) Increased metabolism due to fever; (2) Acidosis; (3) Deficient circulation rate or blood flow, and (4) Anoxemia. His demand for ventilation in other words, is increased. Now at the same time his available supply of ventilation dependent on his vital capacity may be markedly decreased. His respiratory mechanism is confronted simultaneously with more work to do and a lessened ability for doing it.

Not only that, but because of the low vital capacity, he is obliged to meet his demand for increased ventilation by adopting a rapid shallow type of breathing which of itself introduces two vicious circles, the first that, being an uneconomical type of breathing, it still further increases the necessary total ventilation; and the second, that this type has been shown to increase the degree of anoxemia. It would seem that we need look no further for an explanation of the dyspnea. Moreover, the multiplicity of the factors involved and the fact that various combinations of them may serve to use up all respiratory reserve, will show why such clinical phenomeua as dyspnea and cyanosis bear no definite relation to the extent of the consolidation in the lungs.

With this analysis of the morbid physiology in mind, let us try to deduct the logical indications for symptomatic treatment in pneumonia. The possible lines to pursue would seem to be (1) procedures which diminish the need for

ventilation, and (2) procedures which increase the vital capacity, in other words, measures which will either decrease demand or increase supply of ventilation.

As to the first, we have several methods, of attack. The metabolism we probably could alter only by alterating the temperature hyperpyrexia we do try to relieve, but it is not felt wise nowadays to interfere with temperature unless excessive. At the crisis, nature restores temperature to its normal level. The metabolism probably falls with it, and as is well known, dyspnea often ceases with no discoverable change in the extent of the anatomic lesion. This may well be explained by a suddenly decreased demand for ventilation.

In the matter of increasing vital capacity and so increasing the efficiency of the pulmonary bellows, there probably are no direct measures that can be used except when the low capacity is due to pleural pain, in which case morphine may accomplish it; or, when it is due to abdominal distention, when relief of that condition may improve it. A large number of these patients do not know how to breathe properly and because of some discomfort will have a rapid, shallow breathing that can be greatly benefitted by a few minutes of instructions. There are however, two procedures that I want to especially emphasize. It has been demonstrated that there is as a rule a dimished alkali reserve in the blood in pneumonia patients.

Henderson and Haggard have shown that in well people in order to eliminate a certain amount of carbon dioxide per minute less pulmonary ventilation will be required if high level of blood bicarbonate is maintained. A rise in the dissociation curve, therefore, enables the respiratory mechanism to perform a required task with less labor. The same has been found true in patients with pulmonary emphysema. Now then, why should not the same sparing of the respiratory mechanism occur in pneumonia by giving sodium Bicarbinate?

In pneumonia a considerable amount of organic acid is eliminated in the urine and it has been found by Palmer[4] and others that it takes more alkali by the mouth to render the urine alkaline in pneumonia, than in normal persons. Our conception then of the use of alkalies in pneumonia is that it may be helpful in two ways, by correcting a nonvolatile acidosis, if it exists, and if not by decreasing the amount of ventilation necessary to accomplish the output of a given quantity of carbon dioxide. It is well to bear in mind the danger of producing an alkalosis especially from the use of too much sodium bicarbonate.

The reaction of the urine should be the guide.[5] Enough of the bicarbonate should be given to render the urine alkaline. Then it should be discontinued, to be used again if the urine returns to an acid reaction. It is hardly possible that a dangerous alkalosis could develop while the urine remained acid. Tetanic contraction of certain muscles especially about the face is probably of more value than the alkaline urine in making a diagnosis of alkalosis.

The second procedure for consideration is the use of digitalis in pneumonia and especially do I want to urge you to govern your treatment by the rise and fall of the blood pressure, rather than the

rate of the pulse. The life of the human organism depends largely upon the equilibrium existing between arterial and venous pressure; if this is perfect nutrition is perfect, and all waste is readily removed. If arterial pressure falls venous pressure rises and if persistent will finally result in the dissolution of the organism.

Weakness of the heart muscle is evidenced by a fall in blood pressure. A blood pressure much below normal in pneumonia is unfavorable. A very great fall is ominous[6]. The relation of blood pressure and rapidity of heart to the prognosis in pneumonia is formulated in Gibson's rule[7] "When the arterial pressure expressed in milimeters of mercury does not fall below the pulse rate expressed in beats per minute, the fact may be taken as an excellent sign, while the reverse is equally true." There are of course exceptions to this in cases of hypertension and in those with habitually low blood pressure.

Apart from the ordinary pharmacolgic action of digitalis, it appears to have a special usefulness in lobar pneumonia which is not explained on the basis of its action on the nervous or muscular mechanism of the heart. Concerning this factor, naturally nothing definite was known until Hatcher & Weiss[8] showed in their convincing experiments that emesis resulted after the intravenous administration of a digitalis body when the carotid and vertebral arteries were tied although very little of the poison could have reached the vomiting center. On the other hand perfusion of the brain and medulla with defibrinated blood to which eubain had been added did not produce nausea or vomiting, nor was direct application of digitalis bodies to the vomitting center followed by emesis. The application of 0.0001 mg. apormorphin hydrochlorid to the vomiting center, however, was promptly followed by vomiting. Further experiments showed that when the nerve supply of the heart is intact emesis can be produced by the intramuscular injection of a digitalis body, but that these bodies are not capable of inducing vomiting when all of the nervous connections between the heart and medulla are cut. These results are interpreted as evidence that the digitalis bodies produce emesis by reflex action, protective in nature from the direct action of the drug on the heart itself. Impulses appear to pass from the heart to the medulla chiefly by way of the sympathetic but to some extent by way of the vagus. Such a conception of the mechanism of the emetic action of digitalis bodies obviously means that the effect of the drug on the heart cannot be dissociated from the emetic effect.

The purpose of the administration of digitalis may, then, be stated as the support of the cardiovascular action, particularly as evidenced by the relation of the diastolic blood pressure to the respiration frequence. By an arithmetical co-incidence similar to that which underlies the Gibson pressure, pulse relation, it can be affirmed that whenever the diastolic pressure in millimeters of mercury falls to within less than ten points of the respiration frequency in excursions per minute, the prognosis tends to become grave; and that so long as the interval of ten points or more is maintained, the prognosis remains fairly good.

Furthermore, a drop of diastolic pressure below 60, irrespective of the respiration rate, if occurring before fever ends, is potentially of unfavorable import. Consequently either rise of respiration rate or fall of diastolic pressure so far that the two curves fail to show an interval of ten points or more, or a tendency of diastolic pressure to fall and remain below 60, constitutes a definite indication for the production of full digitalis action. The effect is best measured by the rise of diastolic pressure which is a much more trustworthy and significant index than the pulse rate.

There is one practical point, however, which needs repeated emphasis, the time element in digitalis, thereby is important. Even when a good preparation of digitalis is given hypodermically or intramuscularly and in full dose, say the equivaent of three grains of the leaf at least four hours elapse before a marked rise of diastolic pressure can be noted; sometimes it is eight hours or more. It is unusual to get digitalis effects from any preparation given by mouth in the ordinary dosage in less than 36 to 48 hours, more frequently longer. Digitalis given by mouth today in the ordinary doses does not manifest itself until day after tomorrow.

This interval can be shortened by previous sensitization of the heart to digitalis. At least it is shorter when digitalis in moderate doses has been previously administered for two or three days. Hence it is well to give the digitalis from the beginning, in small doses; about five minims of good tincture, by mouth three times a day, ordered as soon as one sees the patient, irrespective of the symptoms presented. Such dosage does no harm, in any event. The malady may run its course to recovery without any definite indication for full digitalis action being presented; but the drug is continued in these small doses nevertheless. If, however, the indication for digitalis arises as shown by the approach of the respiration and diastolic pressure curves, the drug is then immediately given hypodermically in full dose and repeated every four hours so long as necessary to maintain diastolic pressure at the height indicated.

Conclusions

1. A rational symptomatic treatment of any disease is only possible when there exists a thorough understanding not only of the pathological anatomy but of the morbid physiology as well.

2. In pneumonia the amount of lung tissue consolidated bears no definite relation to the rapid breathing, numerous other factors contribute to this distressing state of affairs, among them being increased metabolism, acidosis, deficient circulation and anoxemia.

3. The treatment can be used at any time to supplement specific therapy. When used, however, it may be expected to spare the patient several seemingly unavoidable burdens, and leave him free to devote his entire energy to the fighting of his infection. At least theoretically improving his chance of recovery.

4. The simplicity of the treatment makes it practical to treat pneumonia successfully in the most humble cabin and by the most mediocre physician.

5. The treatment does not exclude, but very definitely includes,

rest in bed, fresh air, but always with regulated temperature, proper diet and all other methods of good nursing.

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LUETIC AORTITIS

M. I. MENDELOFF, M. D.
Charleston, W. Va.

The routine employment of the Wassermann reaction and the use of the X-Ray and fluoroscope has emphasized the frequency of luetic aortitis in patients in whom the complaint with reference to the cardio vascular apparatus may be slight or none at all. The frequency of cardiac involvement in cases of Tabes and Paresis has been frequently commented upon.

Next to rheumatism syphilis is the most common etiological factor in causation of heart disease, and is **the cause** when the aortic valves are involved, particularly when the patient is between 30 and 60 and gives a history of a primary infection dating back 15 or 20 years.

Of all patients with endocarditis one fourth have involvement of the aortic valves, and of these a large percentage have luetic involvement of the semilunar valves and aorta. Of 182 cases of aortic disease Longcope found 74 to give a positive Wassermann. In Romberg's clinic of all cases of Aortic insufficiency 67% were luetic.

The frequency of luetic aortitis depends upon the race and the strata of society studied, being more common in the negro and among the laboring class.

Generally it can be stated that aortic insufficiency occurring in persons below 30 is apt to be rheumatic in origin, while occurring in persons between 30 and 60 to be syphilitic and occurring after 60 to be arteriosclerotic.

Aortitis is a late manifestation of syphilis, the symptoms coming on 10 to 25 years after the initial lesion. A number of cases of Aortitis has been discovered in case of congenital syphilis. The condition is more common in men.

Pathology: The lesion begins in the media of the ascending arch of the aorta, later involving the transverse and the descending arch; infrequently the abdominal aorta may be involved. As the inflammatory process descends it involves the semilunar valves giving rise to regurgitation. When the process encroaches upon the sinus of Valsalva it chokes the mouths of the coronary

arteries thus giving rise to symptoms of coronary occlusion. Should the process extend from the media to the intima the aortic wall weakens and aneurysm develops.

Types: There are 4 types of the disease.

1. Simple Luetic Aortitis.
2. Aortic Insufficiency.
3. Coronary disease.
4. Aneurysm.

Simple Luetic Aortitis.

Unless the symptoms are very marked this condition is frequently not recognized. These cases are discovered during routine study of the heart by means of X-Ray and fluoroscope. The condition may give rise to no symptoms if the process is confined to the ascending arch of the aorta. The patients capacity for work may not be impaired, there may be no subjective symptoms, and the pulse blood pressure may be normal. Most of the patients, however, complain of substernal pain and feeling of impending death. The pain may be sharp, localized behind the sternum, or there may be typical anginal attacks with pain radiating down the left arm, neck or chin. These attacks may come on gradually, or they may come on suddenly, as in the case of a station porter, previously in good health, who on attempting to lift a trunk experienced a sudden agonizing pain behind the sternum, became prostrated and vomited. When brought to the hospital he was cyanotic, with ashen gray color and dyspnoeic; physical examination revealed the presence of an aortitis which was verified by the X-Ray and by the fluoroscope, and the patient admitted a treponemal infection in 1906.

Physical examination will show these patients to have an ashen gray color, they are slightly cyanotic, and on examination you will find pulsation in the episternal notch, pulsations above the clavicles. On percussing the sternum you will elicit dullness to the right of the sternum and behind it. A systolic murmur is heard over the aortic area, and the aortic second sound is ringing. Hoover states that by placing one hand over the second interspace and the other in the interscapular space one can feel a pulsation of the aortic arch. This can be brought out also by having the patient in good light and watching for pulsation in the upper portion of the sternum and in between the scapulae.

The majority of these patients give a history of a luetic infection and a positive Wassermann.

Aortic Insufficiency:

The most frequent complication of syphilitic aortitis is aortic insufficiency; it is caused by the process extending to the semilunar valves. You have here the symptoms of luetic aortitis to which symptoms of aortic insufficiency are added. You have a large heart, due to left ventricular hypertrophy. The disastolic murmur is soft and heard more often along the left sternal border. The systolic murmur over the aortic area which we hear is simple luetic aortitis is still present. Associated with these findings you have the peripheral vascular signs of aortic insufficiency. Throbbing of the carotids and subclavians with pistol shots heard over the brachials and femorals. In marked cases the entire arterial tree is pulsating. Capillary pulsation is easily seen. The pulse is of the water hammer variety. The

systolic blood pressure is high while the diastolic is low, giving a high pulse pressure. Anginal symptoms may be superimposed on the signs and symptoms of aortic insufficiency. Later there may develop symptoms of myocardial insufficiency and cardiac failure.

Coronary Disease:

Here it is impossible to differentiate from symptoms of angina pectoris. Pathologically the lesion is produced by the extension of the process to the sinus of Valsalva, where the mouths of the coronary arteries are encroached upon. Whether the symptoms are produced by the stretching of the aorta or whether the symptoms are caused by myocardial degeneration is not of great importance from the standpoint of symptomatology and treatment.

Aneurysms of the Aorta:

One of the other complications of luetic aortitis, caused by the weakening of the coats of the aorta thus allowing dilatation and later sacculation. The signs and symptoms of aneurysms are well known. It is frequently accompanied by cardiac hypertrophy, though as a rule the heart is normal in size.

Prognosis as a rule is not very good. Once the symptoms are established the course is gradually down hill. In cases of simple luetic aortitis when discovered early the prognosis is fair, provided the patients mode of living is so arranged that his cardio vascular system is not subjected to any great physical and mental demands, and provided the patient is receiving intelligent treatment. When the symptoms are established and cardiac function is impaired, as in the aortic regurgitation, the prognosis is poor as the duration of life is rarely over two years. Death usually takes place from cardiac failure or from rupture of the aneurysmal sac.

Treatment:

Prior to the introduction of the newer arsenicals the condition was treated with mercury and iodids. When salvarsan was introduced it was stated in the directions that its use was contraindicated in the treatment of cardio vascular disorders. However, it was used in some cases with benefit. This was followed by the routine use of salvarsan in the treatment of syphilitic affections of the heart and aorta. In view of the many untoward results which were encountered, the profession has sounded a warning against the routine use of the arsenicals in the treatment of such disorders. Udo Wile, Longcope, Barker and others have reported cases in which the administration of salvarsan was followed by aggravation of symptoms and by death. The reason for it is explained by Udo Wile to be this. The end result of syphilitic infection is fibrosis. The more energetic the treatment the more rapid the fibrosis. In syphilitic affections of the cardio vascular apparatus there is extra work put on the heart, and instead of accomodating itself to it by the slow process of hypertrophy and dilatation, under salvarsan treatment it responds to it by the rapid process of fibrosis, thus giving out under the strain. Wile claims that syphilis was treated more intelligently in the pre-salvarsan days than at present and he cautions against the indiscriminate use of the newer arsenicals in the treatment of cardio vascular syphilis. Though the general condition of the patient is improved under the arsenicals,

the heart condition is made distinctly worse. The best treatment is to begin with a course of mercury and iodids, this to last for several weeks. When using arsenicals have the patient in bed under close observation and give small doses, beginning with 0.2gms in small amount of water and watch patient carefully for a few days.

The cases which offer the best prognosis are the simple luetic aortitis. Here the amount of damage is not very extensive and by avoidance of hard work you can do a great deal toward restoring the cardio vascular efficiency. When aortic insufficiency has developed the damage is extensive and the treatment does not offer the results you get in the early luetic aortitis. In all these cases prolonged stay in bed should be insisted upon. It is doubtful if treatment is indicated in the indolent types of aortitis one discovers in paretics and tabetics. When myocardial insufficiency develops treat such cases with digitalis and limitation of fluids.

ETHYLENE, ITS USES AS A ROUTINE ANAESTHETIC

E. BENNETTE HENSON, M. D.
Charleston, W. Va.

Surgeons agree that the ideal anaesthetic has not been discovered and for that reason are always eagerly watching for new discoveries in the field of anaesthetizing agents. The surgical world was recently very liberally rewarded and quick to avail itself of the wonderful work of Prof. A. B. Luckhardt of the physiological department of the University of Chicago in discovering the anaesthetic qualities of Ethylene. Prof. Luckhardt's experiments and reports have been so recently broadcasted in the scientific and lay press that to review his work is unnecessary.

Early in September we started using Ethylene to the exclusion of all other anaesthetics in the Charleston General Hospital in order to satisfy ourselves as to its value as a routine anaesthetic. The number of operations performed in the series is one hundred and twenty-five which includes thirty abdominal sections, fifteen tonsillectomies, one nephrectomy, one herniotomy, one thoracotomy, one mastoid and one spinalbifida, the remaining seventy-five include all such cases as amputations, reduction of fractures and opening of abcesses.

Among the abdominal operations there were four hysterectomies, two cholecystectomies, and five simple appendectomies, the remainder being for pelvic infections and exploration. In these abdominal cases there was sufficient relaxation of the abdominal muscles to permit the usual technique to be followed. In most of the cases the relaxation was as complete as any surgeon should desire.

Surgeons who have allowed their technique to increasingly demand more and more relaxation of the abdominal muscles until it has become a habit with them to insist upon the anaesthetist producing complete relaxation of the abdominal muscles before they can continue with the operation should never undertake an abdominal operation under Ethylene anaesthesia. The administration of Ethylene gas demands the co-operation of the surgeon as much as when nitrous-oxide gas is given. In this series of cases the

surgeons and anaesthetist worked in complete co-operation and as a result ether was resorted to in only one case and this case had had no preliminary medication of morphine In this case not over four grammes of ether was administered during the operation.

The relaxation of the abdominal muscles under ethylene is much greater than under nitrous oxide.

In the majority of our cases we gave preliminary medication of morphine and atrophine, but in the larger number of emergency cases no medication was given before the operation. It was found necessary, however, to give morphine immedidiately after the anaesthetic was finished on account of the pain being felt if the operation was at all a pain producing one.

This point was strikingly brought to our attention by a young man who was the third in our series and had no medication. The operation consisted of correcting a valgus deformity of the foot due to a recent injury. The anaesthetist had hardly removed the mask from the face when he grabbed his foot and began yelling to the top of his voice that his foot hurt. It was several minutes after morphine had been given before quiet was restored.

We feel that unless idiosyncrasy to morphine is proven to exist, morphine and atrophine should be given before an operation. A good procedure to follow in adults, is to give one eighth grain of morphine dissolved in two C.C. of 25% solution of magnesium sulphate the night before the operation, and note its effect on the patient. If he had a restful night and was bright in the morning a dose of one sixth grain before the operation, dissolved in the 25% magnesium sulphate solution should prove sufficient. If this procedure is carried out the patient will not come to the operation poisoned with morphine.

In this series of cases, the youngest operative individual was an infant of three months which came to operation with an imperforate anus. The infant was under Ethylene for forty minutes without any noticeable shock and was crying one minute after the anaesthetic was stopped. The oldest case was a woman of seventy-five with inoperable carcinoma of the cervix. The operation consisted of inserting radium in the cervical canal. The time consummed was twenty minutes and she awakened apparently no worse off for her experience.

The length of anaesthesia varied from five minutes to one hour and fifteen minutes. The average time was about thirty minutes.

There was nausea immediately following the termination of anaesthesia in eight cases, and two cases were nauseated during the anaesthesia. Unconsciousness occurred between twenty and forty seconds and anaesthesia occurred from forty seconds to two minutes. Recovery took place between thirty seconds to four minutes. The recovery was much more like awakening from a normal sleep than that of nitrous-oxide anaesthesia.

We feel that our series represents the average run of cases encountered in the large majority of hospitals and as stated in the beginning Ethylene was used to the exclusion of all other anaesthetics for the sole purpose of determining its value as a routine anaesthetic. We believe that Ethylene is a great improvement over all the other agents used

as anaesthetics today and we can see no reason (unless the cost becomes prohibitive) why it should not replace ether and nitrous-oxide as the anaesthetic of choice for the following reasons:

1. With the large amount of oxygen used with the Ethylene gas it is as safe as ether during the operation and is decidedly less irritating to respiratory and renal tissue both during and after the operation.

2. There is practically no preliminary exciting stage and recovery is equally as quiet.

3. There is sufficient relaxation for abdominal operations without cyanosis.

4. There is less nausea and vomiting and almost complete absence of gas pains.

5. Rapidity of elimination and prompt recovery with absence of any sweating during and after anaesthesia.

OBSERVATIONS ON THE PROBLEMS OF BLOOD PRESSURE

Read before the Marshall County Medical Society, at Moundsville, W. Va., and the Belmont, (Ohio) County Medical Society at Bellaire, Ohio.

By D. A. MacGREGOR, M. D.
Wheeling, W. Va.

As a preface to a general discussion of blood pressure, it would be well for us to review some of the elementary principles of that interesting phenomenon and hereby lay the proper foundation for approaching the more difficult problems of interpreting the clinical significance of blood pressure readings.

The mechanism of the maintenance of blood pressure is a most interesting physiological study. There are four main factors concerned in maintaining the blood pressure and we shall take them up in order:

1. Peripheral resistance to the flow of blood in the arterioles and capillaries all over the body is a prime requisite to the maintenance of blood pressure. Pressure cannot be maintained in a tube that is wide open at one end. The diastolic pressure is the measure of peripheral resistance.

2. The second important factor in maintaining blood pressure is the force of the heart beat, that is, the contraction of the left ventricle. During diastole the left ventricle fills with blood. During systole that volume of blood is forced out into the general circulation. It is necessary for the contraction of the left ventricle, first, to open the aortic valves which support a back pressure continuously equal to the peripheral resistance, and secondly, to send out its volume of blood into the aorta and its tributaries with increased pressure. The driving force of the left ventricle is, therefore, measured by the pulse pressure.

3. The third factor is the elasticity of the aorta and other large vessels, which furnishes the driving force during diastole. If the large arteries were not elastic the circulation would come to a standstill between contractions of the ventricle. Circulation would be carried on in little spurts. The elasticity of the large arteries keeps the blood moving forward slowly but continuously during the relaxation of the ventricle.

4. The fourth and last factor in the maintenance of blood pressure is an adequate venous return flow

to the heart. Obstruction in the large venous channels leads to congestion in the capillary circulation and this, in turn, increases the peripheral resistance to such an extent that the diastolic pressure is raised to an embarrassing degree. At the same time the left ventricle will be inadequately supplied with blood if the venous return is impeded, and the pulse pressure will be reduced on account of the lessened output with each ventricular contraction.

To summarize, the maintenance of blood pressure depends upon, first peripheral resistance; second, force of the heart beat; third, elasticity of the aorta and other large vessels and, fourth, adequate venous return flow to the heart.

The vasomotor system controls the peripheral resistance by alternate relaxation and contraction of the arterioles and capillaries in large and small areas. It is, therefore, evident that adequate vasomotor control is an absolute necessity for a competent circulation. The control of the vasomotor system is chiefly dependent upon the central nervous system, but certain chemicals are known to have a direct effect upon the blood pressure by stimulating a contraction of the blood vessel walls. Chief among the chemicals which cause a rise in blood pressure in this way are:

1. Barium Chloride.
2. Nicotine.
3. Adrenalin.
4. Pituitrin.
5. Unknown Products of Metabolism.

There are certain normal variations in blood pressure. The systolic blood pressure may vary legitimately between 100 and 150 m.m. between the ages of 15 and 70 years. Ordinarily a systolic blood pressure of 120 m.m. is considered as normal for a young man of twenty. Various rules have been concocted for determining the normal pressure of men at different ages. One rule is to add to 120 m.m 1 m.m. for each two years of the patient's age beyond twenty. Another rule is that the systolic pressure equals the patient's age plus 100 m.m. All such rules are inaccurate. We know that a young "old man" may have a blood pressure of 125 to 130 m.m. and most of the authorities agree that a systolic blood pressure in excess of 150 m.m. at any age is a pathological indication. The diastolic pressure as well as the systolic is subject to variation, but it does not rise at the same rate as the systolic does. In fact it is always more constant than the systolic pressure.

Other factors beside age producing normal variations in blood pressure are the following:

(a). In general women have lower blood pressure than men of the same age.

(b). Excitement, fear, emotion exaltation or anxiety cause a temporary but marked increase in the systolic pressure.

(c). The time of day has a direct bearing upon blood pressure. Our systolic pressure is highest in the afternoon of a busy day, and reaches its lowest point in deep sleep.

(d). When standing a patient's blood pressure is several points above the pressure recorded when he is lying down.

(e). There is a physiological increase in blood pressure after eating a heavy meal.

(f). There is also a physiological increase which follows exercise.

Many tests to determine the condition of the heart are based upon blood pressure readings before and after brisk exercise. When the heart responds properly to exercise there is a sharp rise in blood pressure and pulse rate and there is a return to normal three or four minutes afterward. A poor response to exrecise is indicated by a slow rise in blood pressure and a rapid rise in pulse rate with a very slow return to normal.

Blood pressure may be either too high or too low. Hypertension is met with far more frequenly than hypotension in a study of pathological conditions. Hypotension may be said to be present when the systolic pressure is under 100 m.m. Aside from the advanced cases of chronic wasting diseases in which the vitality is at low ebb and the blood pressure is correspondingly reduced, there are two groups of patients in which we find this condition.

The first is in the victims of the so-called Addison's disease. In this condition the patient usually presents a systolic blood pressure between 90 and 100 m.m. and that coupled with the pigmentations, weakness, and gastro - intestinal symptoms, determines the diagnosis of the disease. It is possible that the hypotension is due to an insufficient supply of adrenalin or to a break in the harmonious relationship of the endocrine glands.

The second group is the so-called essential hypotension class. Some people have a low blood pressure and there is no obvious explanation to be found for the condition. These patients usually show a lack of resistance to all infections and frequently complain of mental depression, weakness, constipation and syncope. Frequently we suspect them of having an occult tuberculosis. They may never develop a frank case of tuberculosis, but from their general appearance and physical disabilities we are inclined to think that they harbor a relatively inactive infection.

In hypertensive cases the systolic pressure is constantly above the upper limit of normal. At the same time, a diastolic pressure which is constantly above 100 m.m. indicates hypertension, no matter what the systolic pressure is. A patient may present a pressure picture of 170-100 and feel very well. That means that the high systolic pressure is compensating for the increased diastolic and that he is maintaining the circulation in a satisfactory way. If the systolic pressure falls to 140 m.m. while the diastolic remains 100 m.m., this same patient may complain of dizzyness and fainting spells. It probably indicates the beginning failure of his heart muscle. He can no longer maintain his compensatory systolic pressure. The outlook for such a patient is exceedingly gloomy. The pulse pressure must be increased in every fully compensated case of hypertension. The driving force must be greater if the peripheral resistance is higher.

In the presence of hypertension we may expect anatomical changes in the heart and arteries and in the kidneys . The heart hypertrophies, particularly the left ventricle which bears the greater part of the load. The muscle fibres become longer and larger and the amount of fibrous tissue is correspondingly increased. As the fibrous tissue increases at the expense of the mus-

cular tissue, the myocardium is weakened. With the increase in the size of the ventricle its capacity is also increased. The normal ventricle will hold from 70cc to 90cc of blood. In cases of marked hypertrophy the cavity is correspondingly enlarged, so that with each contraction a larger volume of blood is forced into the general circulation. The aortic valves become thickened and sclerosed, as a part of the pathological changes taking place both in the heart and in the aorta.

In the arteries all over the body we may find a diffuse fibrosis which we call arterio-sclerosis. There is a loss of elastic tissue and muscular tissue in the media or middle coat of the arteries. The smaller distributing arteries become tortuous, thicker and firmer. By proliferation of connective tissue the lumina may be very considerably decreased in size, which causes an increased peripheral resistance. The aorta enlarges; its walls become thicker and less elastic; points of weakness develop which may result in aneurysmal dilations. When marked aortitis has developed we are usually able to detect it by such signs as increased retro-manubrial dullness, bronchial breathing over the arch, increase in the size of the shadow by X-Ray, and accentuation of the aortic second sound.

Anatomical changes in the kidney are not constant. In certain varieties of hypertension the kidneys give a good response to the phthalein functional test and appear normal on pathological examination. In other cases the kidneys seem to be primarily involved and their function becomes progressively impaired. At autopsy the small contracted kidney of chronic nephritis is found and microscopically there is a sclerosis of the glomerular arterioles.

Some one has said that an increased blood pressure indicates nephritis before the patient really develops it. This is true in as much as the kidneys are always involved in the terminal stage of hypertension, and may become affected relatively early. However, we do not always find a high blood pressure when the urine shows albumin—and conversely we do not always find evidence of a frank nephritis when the blood pressure is elevated. It is likewise true that sclerosis of the palpable arteries may or may not be associated with hypertension. We all have seen patients, who had rigid radials and temporals, whose blood pressure was strictly within normal limits. On the other hand we often make note of soft and elastic arteries in the victims of marked hypertension.

The increase in pressure must be caused by a marked diminution in size of the blood vessel area, and this change must be on the arterial side of the capillary field. The precapillary arterioles pool such a large proportion of the arterial blood that even a relatively slight contraction of these vessels will cause a marked rise in blood pressure. Therefore it is possible that the toxic agent responsible for hypertension exerts its influence chiefly upon the arterioles, and by their contraction accomplishes an increase in blood pressure. Probably this effect is transient at first but as time goes on the arterioles tend to become permanently contracted on account of the repeated or continuous stimulation of the toxin. Still later

changes of a sclerotic nature in the vessel walls contribute toward the same end by diminishing the lumina and destroying the elasticity of the vessels.

Hypertensive cases may be divided into the acute and chronic varieties. The acute variety arises from such causes as:

1. Eclampsia.
2. Exophthalmic Goitre.
3. Increased intracranial pressure due to tumor or fracture of the skull.

In each of these disturbances the condition of hypertension tends to be relieved promptly when the patient is properly treated for the underlying disorder. There is not the same progressive deterioration to be found in this group of cases that we shall find in connection with the cases of chronic hypertension.

We distinguish three different varieties of chronic hypertension, as follows:

1. Chronic Nephritic Hypertension.
2. Arterio - sclerotic Hypertension.

These groups are not distinct and clear cut classes. On the contrary a patient usually presents symptoms which will entitle him to a place in more than one of the groups. In other words, the different varieties of chronic hypertension are so closely related to each other that their symptoms over-lap.

In cases of chronic nephritic hypertension all pressures are high. A typical blood pressure reading would be systolic 200 m.m., diastolic 120 m.m. The palpable arteries are sclerosed, the patient suffers with both polyuria and nycturia and an examination of the urine usually reveals the presence of both albumin and casts. Kidney function becomes progressively impaired as the disease proceeds and usually the heart finds it increasingly difficult to carry its enormous load. Death usually results from uremia or it may be from cardiac decompensation. This is the so-called cardio-renal disease in which the heart fails to maintain the hypertension necessary to life and the kidneys allow the blood to become loaded with endogenous poison.

The arterio-sclerotic hypertension cases are usually found after the age of 50. While the systolic pressure is high the diastolic is often below 100 m.m. The arteries are fibrous and tortuous. The aorta is dilated and sclerosed; the heart is hypertrophied to maintain the high systolic pressure. Indeed it is in these cases that we may find a typical cor bovinum. These patients have usually led very strenuous or dissipated lives. Many of them have been ardent athletes in youth, while others have devoted untiring energies to the pursuit of business. Examined early these cases show practically a normal kidney function. The urinary examination is often negative. There is no polyuria and no nycturia. When death comes it is usually due to cardiac decompensation. The hypertrophied myocardium finally wears out. Occasionally an apoplexy ends the scene.

Essential hypertension is usually found in a group of patients whose florid complexion and robust physique distinguishes them among their fellows. They are "born" apoplectics and comments to that effect are often made by their friends. They are usually overweight and are full of the feeling of well-being. The

urine may show a trace of albumin and an occasional cast, but the function is good.

On physical examination we may find a marked ventricular hypertrophy and the heart is usually able to maintain a compensatory hypertension for many years. When death comes it is very suddenly from apoplexy or it may come about more slowly from a cardiac decompensation following an infection or a partial paralysis. When decompensation begins the kidneys share in the pathological picture and the patient may be considered a nephritic, if seen at that time.

Certain classes of symptoms may be found in any one of the three groups of chronic hypertension. Let us briefly take up the different symptoms which may be presented.

The cardiac symptoms are the following:

(a). Dysponea.
(b). Oedema.
(c). Angina.
(d). Precordial pain.
(e). Terminal pulmonary oedema, hemoptysis, orthopnoea and dropsy.

The renal symptoms are:

(a). Polyuria
(b). Nycturia.
(c). Fixation of Specific Gravity.
(d). Functional Impairment.
(e). Muscle Cramps.
(f). Headache.
(g). Retinitis with sudden blindness.
(h). Convulsions.

From the gastro-intestinal tract certain other symptoms arise, such as:

(a). Flatulence
(b). Indigestion.
(c). Constipation.
(d). Hiccough.

The nervous symptoms which may be present in the case of hypertension are:

(a). Lack of concentration.
(b). Nervous irritability.
(c). Insomnia, and in other cases uncontrollable sleepiness.
(d). Headache.
(e). Temporary paralysis.
(f). Apoplexy.

When we look about for the cause of this large group of hypertension cases we are disappointed in not finding some one definite explanation. The fact is that we do not know the real cause of hypertension but we feel reasonably certain that the condition may be brought about and may be aggravated by several different things.

Someone has said that the four "W's", Work, Worry, Wine and Women, are at the bottom of high blood pressure and arterio-sclerosis. That is more than half the truth. The work and the worry probably contribute the lion's share, but excesses in the direction of wine and women are undoubtedly responsible for the aggravation of many cases. We do not know why it is, but we feel very sure than a man builds up his peripheral resistance and increases his blood pressure when he tries to crowd three days' work into one and spends his night worrying over the difficulties of his daily grind. Such a man is apt to seek relaxation in alcoholic stimulation or sexual excesses and thereby increase his trouble.

The acute infections may have a bearing upon the production of high blood pressure. It is reasonable to think so when we know that they may impair the vitality of any or all of the internal organs. It is impossible to definitely incriminate

them as a causative factor, just as it is impossible to eliminate them. Syphilis comes in this classification. Probably we are inclined to overestimate the importance of syphilis as a cause of arterio-sclerosis.

Chronic focal infections may be responsible for some cases of high blood pressure. Their importance in this connection has probably been exaggerated by the recent enthusiasm of the medical profession in that direction. It is true that the majority of hypertensive cases have pyorrhea and apical abscesses, but we must not lose sight of the fact that most of these patients are past middle age and we may reasonably expect to find the teeth in rather poor condition. Removal of these focal infections may improve the general health of the patient a very great deal but I have never observed a case in which it materially altered the blood pressure. In the advanced stages these patients do not tolerate surgical procedures very well, and it is possible to do them more harm than good by being too aggressive in this field.

The exogenous poisons, such as alcohol, tea, coffee, tobacco and lead are suspected of having a connection with an increase in blood pressure, but we do not have sufficient evidence to prove that any one of these items may be responsible for a genuine case of chronic hypertension. Out of this list perhaps the excessive use of tobacco is more open to suspicion than anything else.

Auto-intoxication, from poisons elaborated in an unhealthy bowel, is a very likely cause of hypertension. A great many of the hypertensives who have had their gastro-intestinal tracts examined show stasis in some portion of the colon, and most of these cases are the victims of chronic constipation. Many patients with high blood pressure experience a distinct relief from the regular use of saline and mercurial cathartics.

Disorders of the endocrine glands present another group of cases in which hypertension is very common. It is found in hyperthyroidism and in gonadal disturbances at the climacteric. Of course, we do not believe that all of our hypertensives have trouble with their thyroids or their gonads, but it is possible that it may be a manifestation of an inharmonious relationship of the ductless glands.

Heredity plays a very important part in the causation of hypertension. As we have said previously we are reminded of high blood pressure when we see a certain type of man, red of face, thick necked, overweight and unusually vigorous. High blood pressure is also associated with those tense individuals who continually apply themselves to the task in hand with untiring concentration—men who sacrifice time, friendship, the emotions and their physical comfort to the accomplishment of some particular aim. Those men who have their nerves tuned up like the "E" string on a violin usually have increased blood pressure, and we very frequently find that this temperament is an inheritance just as much as the apoplectic physique.

The treatment of chronic hypertension taxes the ingenuity of any physician. In the later stages the best that we can do for these patients is to palliate and alleviate their most distressing symptoms. At earlier stages a great deal can

be done to prevent the rapid advancement of the disease. We must never lose sight of the fact that the hypertension in itself is a compensatory feature, and necessary to the life of the patient. Our aim should not be simply to reduce the blood pressure, but rather to arrest the process which is causing it to increase.

Psychotherapy in the broad sense of the word is perhaps the most useful therapeutic agent. The physician must give the patient the benefit of a thorough examination for diagnostic purposes. He must have the absolute confidence of the patient. After that it will be easier for him to allay the patient's fear in regard to the progress and outcome of his disease, and to arouse his hopes for a continuance of comfortable living based upon a rational understanding of his condition and the proper safeguarding of his conduct. A hypertensive who looks to the future with dread multiplies his trouble day by day, but if he can be taught to face the future bravely and philosophically he may be able to lengthen his life by several years.

Some very elaborate diets and some very meagre diets have been prescribed for this condition and patients have often undergone needless hardship in attempting to follow out such diets rigidly. The diet should be carefully prepared for the patient so that he will get an ample supply of nourishment for his requirements, and not an excess to overload his excretory organs. In the presence of nephritis the usual precautions in regard to meat and meat extractives should be observed, but not all of these cases present any marked degree of nephritis. No diet list can be prepared which will satisfactorily cover all cases, but each case must be handled individually.

Recreation and frequent vacations from work are very necessary to the hypertensive who has brought on his trouble by too ardent application to his work. He must be taught that he can do more work and better work if he takes one day's vacation in three. It is not well for the average man to abandon his work altogether. He becomes introspective and he has too much time to worry about the possibilities in his particular case. Let the patient work but never to the point of taxing his physical or mental powers.

The same rule applies to exercise. He should have physical exercise, but it should never be of the intensive athletic variety. Many a patient has brought upon himself an early cardiac decompensation by ill advised athletic exercises which were too vigorous for him to undertake. A hypertensive should never be entrusted to the care of the director of a gymnasium who will put him through his paces with the rest of his class. This same rule applies to hydrotherapy. These patients cannot stand cold baths and ice plunges. Neither should they be subjected to prolonged hot baths or steam baths. Their bathing should be in tepid water because the stimulation of the hot and cold baths may increase the cardiac load beyond his level of safety.

Many patients with high blood pressure experience relief from their symptoms, at least for a time, from electro-therapy. The only electric current of value is the D'Arsonval or auto-condensation

treatment. There is a temporary decrease in both systolic and diastolic blood pressure after such an electric treatment. Patients with nervous symptoms such as headache or dizziness report that there is an improvement after treatment. It is necessary for these patients to return frequently for treatment in order to keep the pressure symptoms in abeyance. We do not know the physiological explanation of this form of therapy, and it does not receive the endorsement of our more scientific friends, but we do know that many patients receive it very gratefully and are apparently benefited while under treatment.

Drugs are of very little use in the treatment of hypertension. The iodides are widely used but with indifferent success. The nitrites are useful only in the treatment of angina or acute cerebral symptoms. Their action is transient and their continued use is not justifiable. Mercurial and saline cathartics are useful and many patients feel greatly improved after their use. Digitalis is probably the most useful drug. It may be used before decompensation begins and in selected cases will sometimes cause a slight lowering of the blood pressure coincident with an improvement in the patient's feelings. In the presence of decompensation it is the one drug to which we can turn with any degree of hope whatsoever.

The ancient and almost forgotten art of blood-letting is of very great value in some of our hypertension cases. The psychological effect upon the patient who knows that he has an increased blood pressure is extremely good. At the same time there is usually an immedi[illegible] improvement in the physical symptoms. The removal of 500cc to 800cc of blood by needle from the vein is a simple and harmless expedient which should never be overlooked in urgent cases.

The final phase in the treatment of hypertension will be the treatment of the terminal complications, which are:

1. Cardiac Decompensation.
2. Angina Pectoris.
3. Pulmonary Oedema.
4. Cardiac Asthma.
5. Apopl[illegible] 6. Uremia.

It is not necessary for me to detail the treatment for these terminal complications with which unfortunately we are all so familiar. When a case has progressed to the point where one of these conditions supervenes, the physician is called upon to give what comfort he may be able to give to a patient who has lost his long fight against an old time foe. He can do a great deal to make his last days more tolerable, and this should be done by the free use of sedatives and opiates if necessary. The family should be taught by the physician to look upon the situation philosophically. New and radical forms of treatment should not be inflicted upon the patient at the eleventh hour. Meddlesome attentions serve only to annoy the patient and increase his sufferings. It is far better to let gentle ministrations soothe the pain racked body and sleeping potions quiet the uneasy mind, and thus make the end more peaceful.

ARTERIAL HYPERTENSION

Read Before the Cabell County Medical Society by C. G. Willis, M. D., Huntington, W. Va.

My object in reading to you this paper is to try to enumerate a few

things about arterial hypertension and to endeavor to bring about a discussion of this subject by the members present.

I do not think there is much new of interest or importance to present at the present time, however much observation is being made. It is a subject in which every one in medicine is deeply interested, and one which at times gives us much concern. This condition probably ranks next to tuberculosis as a cause of death in the United States and as a cause of crippled later life it is probably beyond all other diseases. There is no question about the fact that it is one of the most important problems before medical men of today. In this assemblage there will be one or two who will be victims to a certain extent of this malady sooner or later.

There are many and varied conclusions drawn from a blood pressure reading. Pressures are taken with the patient in such physical positions or mental states as not to give an accurate idea of the true condition. Much difference of opinion as to treatment exists, good men doing almost the opposite for their patients and both claiming some results. I suppose it is like the old doctor who said, "It makes no difference what the treatment is if you know the cause." However it is surely a fact that there is no condition in which results would be more gratifying than in that of arterial hypertension.

Generally speaking the systolic pressure as measured in the brachial artery while the individual is at rest is between 90 and 105 in childhood, from 120 to 140 in middle life and from 140 to 150 after sixty years. In women it ranges from 5 to 10 points lower than in men. The diastolic pressure is from 30 to 50 points lower than the systolic and is much less susceptible to variation. The pulse pressure is normally between 30 and 50. It becomes less and less as the periphery is approached and in the capillaries falls to nothing, there being no difference between systolic and diastolic.. A persistent systolic pressure over 150 diastolic over 100 and pulse pressure over 50 is generally considered high blood pressure.

Normal blood pressure is maintained principally by (1) the resistance caused by the flow of blood through fine capillaries, (2) the force of the left ventricle, (3) the elacticity of the arterial walls, and (4) by the various muscles pressing on arteries in moving the body.

Normal variation in blood pressure is caused by many factors but they are all subdivisions of the following: Mental state, muscular action, altitude, temperature, conditions which cause an increased amount of arterial blood flow, as in fevers, digestion, cerebration, position of the body and sleep. It is quite certain that blood pressure varies in different nationalities, notably the Chinese, in whom the pressure is 10 to 20 points lower than our figures. Several observers have stated that hypertension as a pathologic condition is very unusual even with the signs of nephritis. The above is practically identical with the observations of Musgrave and others among the Filipinos. This probably means that it is due to their slow way of living. It would surely be very interesting to collect data from other countries and see if there is not a correlation

between rapid living and eating and hypertension and chronic nephritis.

Carl Muller, of Copenhagen, took blood pressures in 50 persons, 20 men, 20 women and 10 children, while awake and while asleep. The pressure was taken while the patient was awake lying in bed at complete rest and again after they had been asleep for two hours. The systolic pressure for the men was almost constant at 95. The pressure while awake was from 100 to 135. In women the average systolic pressure was 88 and while awake it was from 102 to 131. The blood pressure in children varies more than in adults. He assumes that with men under 43 the normal is very close to 94 and must be regarded as definitely pathologic if it exceeds 110 during sleep.

Hypertension as a pathologic condition may occur in association with certain well defined intoxications such as puerpural eclampsia, uremia and lead poisoning. In association with asphyxia the result of bronchial asthma, decompensating heart disease, etc., the excess of CO^2 causing constriction of the splanchnic vessels and stimulating the vaso-motor center. In association with increased intracranial pressure. The medullary anemia produced in such a case acting as a stimulant to the vaso-motor center and causing intense vasoconstriction, and in association with nervous disturbances, such as pain and profound mental and emotional excitement.

Essential hypertension, so called, is the term used to designate those cases of high blood pressure which exist for a longer or shorter period without anatomic changes in either the kidneys or arteries and in which no cause can be discovered. In other words high blood pressure is the essential feature and earliest in appearance. I believe this term is meant to cover the cases that show no symptoms and are frequently discovered by the insurance examiner. But I cannot think of a case of essential hypertension that has existed any great length of time without arterial changes and kidney changes.

Ten years ago one was so sure that a patient with hypertension had nephritis that it was almost unnecessary to make a urine examination. Today while we see many cases where the pressure is over 200 systolic and over 100 diastolic with albumen and many casts present, but we see many cases also where the urine examined over a long period is normal. Also we see many cases showing nephritis in a more or less chronic form in which the blood pressure is normal. So it seems probable that the cause of both nephritis and arterial hypertension may be common, they being the two predominant symptoms. The cause may be very remote and as the body grows older and loses its power of resistance one or the other of these symptoms is the first to put in its appearance and probably for a considerable time only one will be present. It surely seems that each might be capable of produring the other.

It is interesting to think for a minute about the retention products in the blood. I have seen a case with a systolic pressure of 95 and 27 mgm. of urea nitrogen per 100 cc. of blood, this is almost twice normal, also I have seen a case with a systolic pressure of 170 with 14 mgm per 100 cc of blood. There

are many cases similar to these and many where the kidney function is well within the normal limits and the blood pressure is high. I think it is the consensus of opinion that there is no relation between the amount of urea nitrogen, non protein nitrogen and creatinin in the blood and high blood pressure.

As to the cause of hypertension we know practically nothing. Its victims come from all classes. The majority are persons of apparently robust health, many are over weight. In women it often begins about the time of the menopause. Syphilis is probably not a factor. Tobacco and alcohol may be factors but are probably not capable of producing it in themselves. O'Hare states that of the causes of high blood pressure two stand out prominently, they are a family history of cardio vascular disease and hard, worrysome work. Men in business who find it hard to make both ends meet or who have a heavy mental strain, burning the candle at both ends. One has often heard patients state, "I am afraid I will be paralyzed because so and so was and he was my father, my brother or my uncle." I am sure I have observed the fact that there is something in the family history. However this is only an incident and not cause. It seems probable that the cause for hypertension, arteriosclerosis and chronic nephritis may be common. That some one of these symptoms puts in its appearance first and we are inclined to lay that down as a cause for the others. Focal infection has been held responsible, however there is no evidence to prove this more than the fact that they are sometimes associated. Probably at some future date we will know that arterial hypertension is caused by some, at present, obscure intoxication, which comes on as we are turning into middle life when the power of resistance or the power to neutralize is diminished. It seems that our hope to discover this must lay in the chemistry of the blood.

Physical Examination

Pressures should be taken with the patient at complete rest mentally and physically, resting for 10 minutes in the prone position. In indefinite cases readings should be taken over several days. Considerable information may be gained by the response to exercise. In all cases the arteries should be examined to determine as far as possible the degree of arterio-sclerosis. The heart should be examined to determine the hypertrophy and the state of its muscle. It is needless to say that diastolic as well as systolic pressure should be taken in all cases. A thorough urine examination is essential. I believe we should try to classify as far as possible the type of hypertension we are dealing with, as I believe it makes some difference in the treatment of the cardiovascular group and the so-called benign or essential group. The degree of "fatness" or "leanness" of an individual should be noted, as it also makes some difference in treatment.

I think the most important thing we could say about treatment would be prophylaxis. Every person after he or she has reached the age of 35 to 40 should have a thorough physical examination each year or oftener, notes should be sufficient to cover any variation from the normal and should be compared from one examination to the next. No

one runs a high priced car without occasionally raising the hood and taking a careful look to see if everything is in order, but the same man will neglect himself until he has passed the stage where much can be done for him and he may be a cripple in later life.

Treatment with me in so far as markedly reducing the pressure has been uniformly unsatisfactory. But if one is able to arrest a process that if left alone will go on to a crippling stage he has accomplished much. Standing next to prophylaxis comes rest, rest both physically and mentally. It has been shown that rest for even short intervals will affect a drop of from 10 to 20 points in tension so it is well to advise busy men to take short spells of relaxation. Diet is important. I think all patients do best on a light diet. In some corpulent individuals limiting the starch seems to be of much benefit not only by slightly lowering the pressure but in a general better feeling. Limiting the intake of salt has been in some cases of benefit; whether this has been entirely due to the withholding of the salt or to other measures is problematic. While nothing can as yet be definitely attributed to the ingestion of protein still I believe the amount should be limited.

In a general way, advise light eating, thorough mastication of practically everything, with special emphasis on fruits and vegetables and to drink much water. It seems to me a great deal better to get bowel movements through the use of rough food than by the use of epsom salts.

It would be well to keep in mind the fact that the heart is pumping about one hundred thousand times a day and if it is pumping against high pressure its work is increased many tons in this time.

PYELITIS

Read Before the Eastern Panhandle Medical Society at Regular Meeting in Martinsburg, Dec. 12th, 1923

By WAYNE B. CRUM, M. D.
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Pyelitis is a subject that is discussed in all text-books of Surgery, Gynecology, Obstetrics, Urology and General Medicine, but unfortunately, for the most part the subject is dismissed with a scant paragraph or two.

For that reason, largely, the average practitioner has neglected to give pyelitis the attention its importance in morbidity and pathology should warrant.

Pyelitis may be discussed as a simple matter, an inflammation of the kidney pelvis, but it really is an extremely complicated subject in its etiology, pathology, its association with other diseases and its treatment.

Pyelitis has been mistaken for practically every surgical condition in the abdomen; certainly for gall-bladder disease, appendicitis, ileus, ovaro-salpingitis and gastric ulcer. It has been mistaken for typhoid fever, tuberculosis, malaria and many other continued fevers.

In health every individual at times takes up into the circulation living bacteria, but these if they escape the phagocytosis of the blood are eliminated through the kidneys without causing the slightest trouble. Given any departure from health and in direct ratio to

the loss of resistance to infection and also in direct ratio to the severity of infection elsewhere, the kidney will not eliminate but will furnish a refuge to organisms that will infect the kidney pelvis.

It is a well established fact that certain strains of streptococci can be isolated from the kidney pelvis of infected laboratory animals, inoculated into another animal of the same or other species and the same organism found after the lapse of a few hours in the kidney pelvis of the animal so inoculated.

Every case of tonsilitis that I see, I inquire into the condition of the urine and in a great number bacteria are found in the urine.

Abscessed conditions about the teeth or infection of the accessory sinuses of the nose are almost as frequently complicated with bacteria. The majority of cases containing bacteria also contain pus cells.

Now the kidney pelves are merely reservoirs for the collection of urine from the tubules and delivery to the ureters, and the relations to these two structures being so intimate it is remarkable that inflammatory conditions of the pelves are so seldom accompanied by inflammation of the tubules and kidney substance and by inflammation of the ureter and bladder, though either of these complications are by no means rare. The reverse condition does not obtain, for practically every case of infection of the tubules or the ureter are accompanied by pyelitis.

The structure of the kidney pelvis renders it a fertile field for infection. First, it is a cess-pool where stasis can easily take place; second, it is a structure which must function continuously; third, it is lined with columnar, or rather, spindle-shaped epithelium which does not resist infection as well as the squamous variety; fourth, it must accommodate any infection which obtains entrance into the circulation in sufficient amount to escape the immediate action of the phagocytes of the blood.

It is not the intention to present this subject ad seriatum, in textbook form, but rather to attempt to indicate the points which are not infrequently neglected. Therefore there are many omissions which may seem unimportant to me, but which it is hoped will invite discussion.

Now, the colon bacillus in the voided urine of the female means very little or nothing on account of the liability of contamination from the rectum and adjoining structures, but in the male the presence of any considerable number indicates infection somewhere in the urinary tract. Other organisms may obtain access through contamination also, but the catheterized specimen from the female which contains organisms of any kind whether or not pus-cells are present calls for investigation.

If pus-cells are present in the urine without organisms being found it is still more necessary to investigate the cause, as in these cases the TB may occasion the pyuria with so few organisms present that they are not seen even after diligent search.

Bacteria or pus or both in the urine of course do not necessarily indicate pyelitis. For a working diagnosis although it should not be relied upon as infallible, the accompanying epithelial cells give a valu-

able hint. Bladder cells are easily distinguished; kidney pelvis cells are not difficult to differentiate and are found in most cases in which the pelvis is involved in an inflammatory process.

Given a urine containing pus cells and the typical spindle shaped endothelial cells from the kidney pelvis, in excess, the diagnosis of kidney-pelvis infection is established. There may be found bacteria without pus which condition is just as indicative of pyelitis the typical epithelium being present.

Every urine containing pus should be examined by staining a smear of the centrifuged urine, because while the infection is apparently due entirely to motile bacteria of the colon type, it is not at all unusual to find streptococci, staphylococci, diplococci, yeasts or for that matter any one of a number of bacterial species in the stained specimen.

Cultures when practicable are of more value than smears but are not always necessary to a clear understanding of a case. Tubercle bacilli are found only occasionally in the urine and then must be differentiated from the Smegma bacillus before diagnosis of tubercular infection of the urinary tract can be made.

Tonsilitis and sinusitis of the accessory nasal sinuses have already been spoken of as primary foci for the secondary infection of the kidney pelves. Pregnancy is very frequently complicated by pyelitis with or without other complications and sometimes the toxic condition attending a pyelitis in the latter months of pregnancy is so severe as to make induced delivery imperative to save the life of the mother.

Pneumonia is frequently complicated by pyelitis and not infrequently the pneumococcus sets up a pyelitis without having occasioned a minor infection elsewhere. Scarlet fever, typhoid fever, in fact every acute infectious disease is at times complicated by pyelitis. The late epidemic of "flu" was responsible for enormous numbers of cases of pyelitis, many of which have not yet cleared up.

The diagnosis of pyelitis from the signs and symptoms is a difficult task. The symptoms vary from none at all to excruciating pain, dysuria, frequency and urgency on the one hand to prolonged fever with remissions and intermissions on the other. The various complications of course give rise to their own peculiar signs and symptoms.

For practical purposes it may be stated that disease of the kidney is painless until there is sufficient enlargement of the kidney to stretch the capsule. This does not apply to referred or reflex pain at the neck of the bladder, in the scrotum or the end of the penis, which symptoms refer as often to the kidney as to the locality in which they occur. It is not at all unusual to examine a bladder which gives the symptoms of pain at, before or after urination, frequency and urgency in which there is no inflammatory condition of the bladder or not enough to account for the symptoms.

The only method that will keep the physician on the safe side is to be constantly on the lookout for this diseased condition. Constant alertness in this particular will be rewarded by the clearing up of many obscure cases that appear to

be one or another of a dozen or so pathologic conditions.

Upon suspicion that a pyelitis may exist or in any case in which it may possibly be a factor, the urine should be examined microscopically. The presence of bacteria or pus or both does not give any information as to the source other than that they are from the urinary tract, or possibly a contamination.- The presence of either or both accompanied by kidney pelvis epithelium is extremely good evidence that a pyelitis exists.

Pyelitis in children is a very common occurrence and quite frequently produces no local symptoms, but is accompanied by a continued fever which resembles typhoid closely. I have several times seen children who were reported to have had typhoid fever twice or more in the same year, these cases were easily determined to be pyleitis when attention was directed toward the urinary tract. In children, night sweats and slight evening temperature often lead to an erroneous suspicion of tuberculosis of the lungs or elsewhere, when the only pathologic condition present is a pyelitis.

The conditions very commonly associated with pyelitis, sometimes as a cause, sometimes as a result and occasionally as a simultaneous complication are nephritis, acute or chronic infections of the tubules and kidney substance, perinephritis and perinephritic abscess, hydro-nephrosis, pyonephrosis, floating kidney, kinked or strictured ureter, cystitis, etc. It would take entirely too long to discuss these complications in detail; their influence on a pyelitis is obvious. The only important fact that seems to have been definitely established in recent years is that regurgitation up the ureters is not only possible but is a not uncommon phenomenon. And it is rather due to this fact than to extension of an inflammation by contiguity of structure that ascending infections of the urinary tract take place.

The diagnosis of kidney pelvis infection having been made, the question arises as to which kidney is involved. This information is entirely unnecessary when the infection can be cleared up readily by medical measures. In those failing to so clear up, however, the necessity for urologic or surgical measures becomes evident. In cases of tuberculosis of the kidney, although in this case the pyelitis is merely a minor factor, nevertheless it becomes urgently necessary to locate the diseased side and to determine whether there is an uninfected kidney.

The catheterization of the ureters, when it is not impossible, clears up doubt on the foregoing point, the examination of the separate urines giving the desired information. The contributary complications such as hydronephrosis, floating kidney, kinked, dilated, or strictured ureter, polycystic kidney, etc., can be identified by injecting the kidney pelvis with thorium or a bromine or iodine salt, and pyelograms taken by the Roentgenologist.

The treatment of pyelitis is a large subject in itself. To epitomize: The causative factor when known, should be removed. This precept is easily followed in cases arising as a complication of tonsillitis or sinusitis of the accessory nasal sinuses. Many other surgical conditions may be responsible, e. g. appendicitis, chronic cholecystitis,

fistula-in ano, etc. The removal of the cause may be sufficient to obtain a cure of the pyelitis, or, the infection may persist after removal of the primary focus. Even after successful treatment of a pyelitis without removal of the primary focus, a recurrence may be anticipated.

It is sometimes sufficient to change the reaction of the urine, especially is this true in cases where the infection is solely by the colon bacillus and the urine alkaline. The colon bacillus is nearly always present however and furnishes the greater number of bacteria seen, but the pneumococcus, streptococcus, staphylococcus, gonococcus and others may and often are present in smaller numbers and resist treatment with much greater persistence, than the colon bacillus.

Relief from symptoms in cases of pyelitis with acid urine can often be obtained by the administration of alkaline diuretics. This seems to be the general practice and is occasionally to be credited with a cure. The reverse is also frequently successful, alkaline urine containing bacteria or pus being cleared up by rendering the urine acid.

There is no doubt but that the administration of hexamethylenetetramine is of assistance in clearing up the urinary tract of infection. This chemical however has not the slightest value in an alkaline medium. This fact is generally known and almost as generally disregarded. The dose of urotropin should be as large as can be given without irritation; forty to sixty grains a day being sufficient in most cases. With urotropin may be given an agent to increase the acidity of the urine. Only two are commonly used. Sodium benzoate in sufficient dosage to be effectual, or acid sodium phosphate when a laxative effect is desirable. To alkalinize the urine nothing is better than the old reliable potassium acetate or citrate.

All medicinal measures may fail; in such cases kidney pelvis lavage through the ureteral catheter and injection of the pelves with germicidal agents should be resorted to when practicable. Pregnancy is no bar to this measure. In cases of uncomplicated pyelitis a cure can be expected after a few treatments, very frequently after one treatment. Such complication as stricture of the ureter may be relieved by the same means.

For complications such as floating kidney, or tubercular kidney, the surgeon must be called upon to correct the displacement or perform nephrectomy as indicated.

Those cases of pyelitis which are not recognized and not treated and they are very numerous indeed, occasionally recover spontaneously, particularly if a primary focus recovers or is cured before the process in the kidney pelvis becomes chronic. The majority go on with semi-chronic invalidism of varying degrees, are rendered more liable to intercurrent infections due to a lowered physical resistance, and they are especially liable to become that bugaboo of every practitioner, the neurotic, hypochondriacal, hysterical nuisance that is responsible for so many complaints against the medical profession and is the bulwark and support of the chiropractic and other irregular.

I have purposely left out the dietary treatment which has some importance and many other points

that are quite generally known.

I wish to remark that this paper is probably subject to much honest criticism, as the authorities at my disposal were so meager and so contradictory that I discarded all of them and have risked my own opinions without regard to current teaching.

WHAT THE UNITED STATES PUBLIC HEALTH SERVICE DOES FOR YOU

Protects You From Communicable Diseases

Of course, all health work in a sense protects you against diseases; but some phases of it do so much more directly than others.

Foreign Quarantine

Most important of the direct work is that of barring foreign-diseases from our shores. This was almost the first duty undertaken by the Public Health Service, which was organized 125 years ago under the name of the Marine Hospital Service, and charged with the medical and surgical care of merchant seamen. Owing to this duty it was usually the first to discover any disease brought from abroad. From this the Quarantine Service of the U. S. Public Health Service developed.

The States of course had control of their ports and at first most of them established their own quarantines. Later, however, it became evident that the National Government was best fitted for carrying out such work; and one after another the States turned over their stations to the Public Health Service. New York, the last, fell in line about two years ago.

Some years ago the quarantine work of the Service was divided into two parts—foreign and domestic. Foreign quarantine has to do with diseases coming from abroad and domestic quarantine with the spread of disease among the States.

The Public Health Service has two lines on defense against foreign diseases, one abroad and the other at home. In all, 77 officers man the first line, 31 in Europe, 2 in South America, 7 in Mexico, 3 in China, 19 in the Philippines and Hawaii; and 15 in Cuba, Porto Rico, the Virgin Islands and Panama. These officers are stationed at as many sea ports, where they are charged with preventing the sailing for America of emigrants infected with diseases, especially typhus, cholera, plague, and yellow fever.

In Europe the task has of late years not been easy. The would-be emigrants were mad to get to the United States; and their native countries were for the most part glad to have them go; and some of the steamships were not averse to carrying them, but were averse to spending money for delousing plants, etc. The Public Health Service could not directly compel them to do this; nor could it evreywhere do it itself, for some European countries objected on the ground that in setting up the necessary facilities the United States was encroaching on their sovereignty.

The Public Health Service has to counter by requesting the State Department to instruct its consuls in Europe to refuse a bill of health to vessels sailing for the United States with passengers who had not been subjected to cleansing measures and by instructing its own quarantine

officers to delouse immigrants on arrival in this country and to detain them, in case of suspicion, for 12 days thereafter. Only by this action were some steamship companies induced to install disinfecting plants abroad. Aided by the present restrictive immigration law and by the disinfecting and delousing facilities, conditions are now reasonably satisfactory. The restrictive law is however, until July 1, 1924 only, and unless it is renewed or in some way replaced the tidal wave of immigrants waiting in Europe for the letting down of the bars will rush for this country at the first opportunity and the resulting pressure will test every timber in the health barricade.

Domestic Quarantine

A task almost as important as keeping out foreign diseases is that of preventing diseases from spreading from State to State.

The law lays this last duty upon the Public Health Service, with the proviso that it is to be done so far as possible by using State machinery. How necessary such use may be is shown by the fact that a year or two ago the Public Health Service representative in one mid-west State, was called upon in a single year to check 23 epidemics (13 of them serious), 9 of typhoid, 1 of gastro-enteritis, 1 of measles, 5 of smallpox, 4 of scarlet fever, and 3 of diphtheria. The total patients from these numbered 1,644.

The Public Health Service has not the force to place a sanitary representative in each State, but it has met the problem by establishing seven sanitary districts, in each of which there is a sanitary engineer. In addition it has adopted the policy of building up in every State Health Department of a strong "division of communicable diseases." Such are now operating in several States. In these, as in all others, however, the Public Health Service stands ready to help whenever called upon by the State health officers.

For 23 years the Public Health Service has been fighting hard to prevent the spread of bubonic plague from the foci in California and later in Texas, Louisiana, and in a few individual ports. Plague is spread by the bites of fleas that live on rats and are carried by them on ships to all parts of the world. The work against plague consists in fumigating ships to destroy as nearly as possible all rats on board; in preventing surviving rats if any from getting ashore (in bales or crates or by walking the mooring ropes); and in rat-proofing all buildings, particularly those in seacoast cities, so that even if plague rats do get ashore they will not find there a sufficient number of rats to propagate the disease. To do all this is not easy; but the Public Health Service, the State authorities and the seaport cities on the Atlantic, Gulf, and Pacific Coasts all joined whole heartedly in the fight, and the march of the disease has been stayed. The last outbreak of plague in man in the United States (that along the Gulf coast), took altogether 30 lives in 1919 and 1920, but since then there have been no human cases.

Besides the plague, the Public Health Service was called upon last year to fight typhus, which for years has ravaged Europe, killing thousands. The disease was brought from Mexico by Navajo Indians who carried infected body lice; and it quickly became rife on the reser-

vation in New Mexico. It was eradicated by the Public Health Service after it had killed 25 Indians and two white men.

Last year, smallpox caused 132 deaths at Kansas City, 24 deaths at Poteau, Okla.; 50 cases (no deaths) at Hickory, Mo.; but yielded to vaccination. Anthrax, imported on horsehair and appearing in 17 States, was not allowed to spread. Infantile paralysis broke out in Idaho, causing 15 deaths, mostly of young children, and in Washington, causing 15 more deaths.

Venereal Diseases

The methods by which the Public Health Service and State authorities prevent travellers already ill with communicable diseases from transmitting them to other passengers have already been described. (See part 3. What the Public Health Service does for You when You Travel.)

The Army records of the physical examination made in connection with the "draft" showed for the first time how generally the people, especially the young men, of the country were infected with veneral diseases, and led to the creation by Congress of a special division of the Public Health Service to control and ultimately to eradicate them. The attack has taken two main forms: 1. A wide educational campaign informing the country of the nature and of the consequences of the diseases to both the infected and the innocent; 2. Co-operation with the States in the case of those infected, the Public Health Service allotting from a Federal appropriation for this work a certain amount of money, dependent on population, for establishing clinics and other veneral disease control measures in States that set aside an equal amount. There are 542 such clinics now in operation.

Malaria.

Malaria is very widespread in the United States. It is a serious problem in fourteen States, most of them large and all of them contiguous. Every consideration of commonsense indicated co-operative action against the disease; and the work in 13 out of the 14 states interested is today carried on by the Public Health Service in co-operation with the State Health authorities and the International Health Board. By their steady and unremitting labors the malaria area (or malaria mosquito area) is being steadily reduced. Communities were freed from the disease in 45 places in 1920; in 26 in 1921; and 96 in 1922. The U. S. Public Health Service directs the work from a headquarters established at Memphis, Tenn. (See also Part 1. Introduction.)

Leprosy

According to the best estimates there are now in the United States 500 to 1,500 lepers, a mere bagatelle compared with those suffering from tuberculosis, which is for that matter far more contagious and far more deadly. Nevertheless, knowledge of the presence of a leper in a street car, for instance, would cause a panic and that of a tuberculosis patient could cause scarcely a thrill.

Public opinion has insisted that the Federal Government shall take charge of all lepers; and it has undertaken to do so.

In 1917, Congress provided for a national home for lepers to be administered by the Public Health Service; but so strongly did the various States object to its location within their borders that it was not

until four years later that the Service was able to acquire a leper home (in Louisiana.) This home is still being enlarged; and each new ward is rapidly filled. The Public Health Service, on application from a proper State authority may accept as a patient at this home any leper found in any state, with the exception of aliens subject to deportation from the country. This protects you in steadily increasing measure against possible contact with lepers who are at large.

Leprosy has been found in a measure amenable to treatment. Nearly one-third of the patients at stations in Hawaii have been released as being no longer a menace to public health; and of these only about one-eighth have relapsed.

AN INSIDE VIEW OF THE DIFFERENCE BETWEEN INVESTING AND SPECULATING

By SAMUEL O. RICE
Educational Director, Investment Bankers Association of America

The president of a young firm that manufactures biologics and pharmaceutical preparations was brought to me by a mutual friend the other day to obtain information as to floating a bond issue to finance his rapidly-growing business. The mutual friend, a man of sound judgment and high integrity, vouched for the manufacturer, his thorough honesty and capability. The manufacturer's clear and comprehensive reports told further that he had an excellent, well-managed, prosperous business.

"We've made a good deal of money," said the manufacturer, "and put it back into the business, but in spite of everything we can do, we are, every day, more and more behind in filling our increasing orders. We've grown rapidly in our few years of existence and can keep on expanding at the same rate, but our opportunities are so great that I don't want to wait five or ten years in growing into them. We've got everything we need, except capital."

"Why don't you issue stock?" I asked. "You haven't anything to secure a bond issue properly, considering the large sum you need."

"I'd rather issue bonds," replied the manufacturer, "because I want to put everything I can get into the business. It would cost at least 15 per cent, probably more, to put through a stock-selling campaign, naturally offering our stock to physicians and surgeons who know the value of our products. It would be much cheaper to issue bonds. Don't you see I'm trying to do everything for the best inetrests of the business? It's a safe proposition."

"Safe, as a good, fine business speculation," I answered, "but not safe as a bond issue. You haven't adequate security for a bond issue. Now, don't misunderstand my use of the term 'speculation.' By it I mean honest, competent, forceful and resourceful business enterprise, the thing that has built this country's prosperity. I don't mean gambling or wildcatting. But every business, no matter how sound and worthy, faces risks. Persons who put money into your business right now would be taking risks. It would be a sensible, sound, fair risk, no doubt to buy your stock. Your fine earning record and your apparent prospects indicate that you, in all likelihood, will pay handsome divi-

dends. Your stockholders would be repaid for the risk in buying stock. They ought to have the reward. They would deserve it.

"But what pay would your bond holders receive for taking the same risk, if you could issue bonds instead of stock? You can't offer more than current rates of interest on long-time securities. You can't adequately secure the bonds."

"But I don't see where there's such a tremendously big risk in my business," objected the manufacturer. "Don't you believe my reports?"

"Absolutely I believe them. I think you are the kind of man who should be encouraged. I think your business achievements are splendid and your opportunities for development excellent. I think you have as fine and desirable bit of speculation as I've seen in a year, and by speculation I mean the best kind of business enterprise. But your business and every other good business unavoidably faces risks, and you haven't any right to let bond holders incur such risks. I don't think one of your bond holders would lose a penny, but you haven't security that says that, and security is the thing that counts in a bond issue."

"You spoke of the advantages certain of your patents give you over competitors. Suppose some competitor gets hold of patents superior to yours? That's easily possible, isn't it? Further, as you cut into the business of some of these large, old competitors, who are firmly established and well financed, they're going to give you a still harder fight. I don't believe anything like that will keep you from growing and prospering, but it might, and if it did, where would your bond holders be? They'd lose, wouldn't they? Yes, your stockholders would lose, too, but they would have taken the risk because of the large returns offered."

However, I passed the manufacturer's bond proposal on to members of the Investment Bankers Association of America without comment other than that I had thoroughly dependable information as to the manufacturer's high integrity and capability. His proposal was rejected. Subsequently he sold stock to several wealthy business men who saw the wonderful business opportunity the manufacturer had. they were men who could afford to take a fair business risk because of the greater rewrad offered. Had they been men of limited income, dependent on their own earnings I doubt if buying that stock would have been wise. Men of limited incomes who are dependent solely on their earnings should, in seeking to build up an independent income for themselves or their families, buy sound bonds. Only if they can afford to risk the possibilities of loss and to wait for dividends can they afford to buy stocks and then only in good, honest enterprises.

The foregoing is one of the best examples of the difference between speculating and investing that I have seen in several months. Speculating is legitimate and desirable, for men who can afford it, but you have noticed that, by implication at least, I have not included gambling and wildcatting, buying and selling on margins as speculation for the average man. Speculating is buying stocks, or anything else, which the buyer has sound reason to believe, either from experience

or from dependable advice, will be profitable. Of course, there is speculative selling too, but for the average man who is not a trader, speculation consists usually in buying into some honest, sound, promising enterprise. Investing consists of putting money into something, usually bonds, that are so well secured that payment of the principal and interest are assured. Buying wildcat oil, flying machine, automobile, radio, patent device and other stocks at the invitation of a promoter whose integrity and business ability are not fully known is not speculating. It isn't even gambling. There's no risk about it—it is certain that the money is lost.

There is only one way for any man who is not a specialist in invest securities to invest safely or to speculate wisely. That is to deal with an investment banking house who integrity and capability are proved.

NEW AND NON-OFFICIAL REMEDIES

Butesin.—n-butyl-para-aminobenzoate. Butesin is the normal butyl ester of 4-aminobenzoic acid. The actions and uses of butesin are similar to those of benzocaine (anesthesin), which is the ethyl ester of 4-aminobenzoic acid (see New and Nonofficial Remedies, 1923, p. 41, Anesthetics, Local, Difficultly Soluble). Butesin is used as a dusting powder, either pure or diluted. It may be used in the form of troches, ointment, suppositories or dissolved in a fatty oil. Butesin is a white, crystalline powder, odorless, tasteless, almost insoluble in water, but soluble in alcohol, chloroform, ether and in fatty oils. The Abbott Laboratories, Chicago. (Jour. A. M. A., Nov. 3, 1923, p. 1523.)

Diphtheria Antitoxin Globulin.—This product (see New and Nonofficial Remedies, 1923, p. 283) is also marketed in syringes containing 20,000 units. Cutter Laboratory, Berkeley, Calif.

Glycerinated Vaccine Virus.—This product (see New and Nonofficial Remedies, 1923, p. 293) is also marketed in packages containing one capillary tube. Cutter Laboratory, Berkeley, Calif.

Afenil.—Calcium chloride urea. A molecular compound of calcium chloride and urea. Afenil has the actions of calcium chloride. It is claimed that when afenil solutions are administered intramuscularly or intravenously, the drug is better tolerated and less irritating than calcium chloride. It is claimed that the intravenous administration of afenil is indicated in hay fever, asthma and other diseases of the respiratory tract in anaphalactic conditions, skin rashes, urticarias and as a means of preventing severe arsphenamine reactions. Afenil is marketed in ampules containing 10 Cc. of a 10 per cent solution of afenil. E. Bilhuber, Inc., New York.

Silver nitrate solution in capsules—P. D. and Co.—An aqueous solution of silver nitrate contained in capsules composed of beeswax with an inner lining of a hard paraffin. The solution is intended for the prophylaxis of ophthalmia neonatorium in the newborn. The solution is marketed in two forms: capsules containing 6 minims of a 1 per cent solution, capsules containing 6 minims of a 2 per cent solution. Parke, Davis and Co., Detroit. (Jour. A. M. A., Nov. 24, 1923, p. 1789.)

THE WEST VIRGINIA MEDICAL JOURNAL

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THE NEW YEAR

Each year we begin the preparation of the January issue with a heartfelt prayer that it may be better than that of the past one for the beginning of the year. It has seemed to us that each year we have fallen so far short of all our hopes and expectations and plans that we are discouraged.

Our profession is an optimistic one, however, and somehow there comes the feeling that this year we will really do a lot. It is this optimism that has kept medicine going forward, and it is this same spirit which makes your Editor feel sure that 1924 will be the best year the West Virginia Medical Association has ever had.

There is much work for us to accomplish. We must take fresh courage and determine to bring about such changes as will bring the whole profession of the State into a more closely knit and active organization. It can be accomplished and we must bring it about.

With this issue of the Journal we begin Volume XIX. This is in con-

pliance with the action of the Council at the Beckley meeting. It was an instruction to the Editor to publish Volume XVIII as a six issue volume that the publication year might correspond with the term of service of the officers of the Association and the financial statement.

It is to be hoped that during 1924 a plan may be worked out by the Council and House of Delegates whereby we may have a permanent headquarters for the State Association with a full-time executive officer in charge. This seems imperative if we are to accomplish the greatest good for the whole profession. Surely as intelligent a body of individuals as comprise the medical profession in West Virginia can devise some plan. Let this be one of the New Year's resolutions.

We have had a prosperous year's work. We have gone forward. There is much to be thankful for.

The Editor extends the season's greetings to his fellow members. May this be the very best of all of our years.

THE CULTIVATION OF A BEDSIDE MANNER

There is so much said now of the science of the healing art we fear that the true role of the physician is lost sight of.

The following is clipped from a little publication gotten out by a house dealing in physicians' supplies. It states the matter so succinctly that it seemed well to publish it. A reason for the discouragement of so many men upon entering practice is apparent. Probabily it is not only the recent graduate but older ones as well who have pondered upon the unappreciativeness of the public.

A careful and thoughtful reading of this article will possibly give an inkling as to where part at least of the trouble is.

"The cultivation of a bedside manner may, in the extreme, be an affectation; but personality and the attitude of the physician may mean the difference between life and death," says Dr. Irving S. Cutter, of Omaha, and goes on to make some poignant observations:

To inspire groundless hope in a patient is criminal; but to give the patient a sense of your appreciation of his suffering, your hope for ultimate relief, and the feeling that you will do all that is possible, is but a natural, justifiable and humane attitude. How much of all this does the student get in medical curriculum or during his intern service? How coldly callous do many of our brilliant graduates appear?

Many graduates may wonder why the citizens of a community remain faithful to the "old fogey" doctor, as the old practitioner is termed, when they, with modern training and equipment, have so much to offer. A study of the methods of the old doctor and the application of many of them would mean greater success for the recent graduate.

The apotheosis of pure science must give way to the larger conception of the conscientious care of the sick, and science for science's sake assume its most important but proper place. Evaluate pure science fairly, evaluate research sanely, and emphasize the skilful management of the sick individual. Teach those principles calculated to relieve human suffering.

Modern medicine must be the applications of science at the bedside

—science so applied that every factor tending to restore the individual to a normal regimen of life shall be utilized. Science is the armament of the physician; and his skill in the use of this armament in overcoming disease reflects his training and his attitude toward his fellow man. Medicine must maintain its super-structure of service as well as its foundation of science.—J. & J. Notes and Abstracts.

THE MENACE OF "MOONSHINE" WHISKY

In the days before the passage of the Volstead Act, the query, "What is whisky?" rarely awakened serious reflections. According to the current definition, the term whisky is applied to distilled spirit made from grain, colored and flavored by storage in charred barrels or by addition of caramel and suitable flavor. It usually contains from 40 to 50 per cent of alcohol. The untoward results of overindulgence in a beverage of this description have usually been ascribed to its alcoholic content, although now and then ill defined "by-products" of fermentation present in the distillate have been charged with a toxicity out of all proportion to the quantities ordinarily present. In protesting the innocence of alcohol, the defenders were wont to point to the indefinite "fusel oil" or to furfurol as the pernicious ingredient—usually without convincing evidence. In properly made and suitably aged whiskies, such constituents could at most play a minor part in the intoxications produced. All of the carefully considered incriminations pointed to alcohol itself as the harmful or intoxicating agent.

The present illicit liquor traffic is a menace to health, and worthy of consideration. While alcoholism is today less prevalent than it was a few years ago, its attendant and after effects on its victims are more serious. The impression is broadcast that this result is due to the "moonshine" liquor which has found a distribution that was practically impossible so long as a legitimately made product was readily procurable. There can be no question about the danger of methyl alcohol, or methanol, which has taken a large toll of disasters in the form of deaths or blindness in recent years, usually through sheer ignorance rather than malicious or murderous intent on the part of the dispenser. The ever present menace through the machinations of the unscrupulous will be appreciated when it is realized that many of the denatured alcohols contain a varying percentage of methyl alcohol ranging from 2 to 10. Attempts to "rectify" these by redistillation for beverage purposes are not likely to remove the danger in the illicit distillate.

It is not against such obvious contaminations that the impeachment of "moonshine" whisky is directed. Anaylses made by the investigators on the numerous samples secured in connection with raids on "moonshine" sugar, grain or fruit distilleries have usually shown a high content of acetaldehyd. The "ranker" the liquor, the higher the aldehyd content. The reason for this has been set forth by government chemists,[1] who have pointed out that the impossibility of fermenta-

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1. Doran, J. M., and Beyer, G. F.: Character of Moonshine Liquor, Am. J. Pub. Health 13:831 (Oct.) 1923.

tion control by the moonshiner results in a considerable oxidation of the ethyl alcohol into acetaldehyd and even acetic acid. Whereas, in an earlier chemical study of whiskies in this country by Crampton and Tolman,[2] the average aldehyd content for legitimately made new products was 3.9 parts per hundred thousand, the modern "moonshine" may contain as much as 100 parts. The content of fusel oil is not essentially different in the whiskies of varied origins.

However, there is considerable agreement on the opinion that the peculiarly harmful effects of new whisky are not due to its fusel oil or its higher content of alcohol. The aldehyd, on the other hand, has long been an object of criticism. As whisky ages there is presumably a polymerization of aldehyds which decreases the toxicity. But "moonshine" cannot wait long to reach its prey. Without care to eliminate the first running of the distillation, with its abundance of acetaldehyd, and the last run or tails, richer in fusel oil, efforts at refinement by fractionation and redistillation are minimized. Little wonder, then, if Doran and Beyer[1] present a serious indictment against the simple pot still and the eagerness for more profits in not discarding heads and tails. These chemists remind us that a large element of the present drinking public, alarmed by the recorded and published effects of drinking methanol mixtures, is disposed to resort to the liquor of seemingly known and recent origin under the impression that, being locally or home made, it is at least safe and pure. The results of many thousands of analyses of this character of liquors show that this may be a fallacy. The evident stupefying or knockout effects of this liquor, in addition to the ethyl alcohol effect, point to the same conclusion.—Jour. A. M. A., Nov. 10, 1923.

2. Crampton and Tolman: J. Am. Chem. Soc. 30:98, 1908.

ANNOUNCEMENTS AND COMMUNICATIONS

Dec. 14, 1923.

Dr. Jas. R. Bloss,
Editor, W. Va. Medical Journal,
Huntington, W. Va.

Dear Doctor Bloss:

Enclosed is a copy of the preliminary program of the annual meeting of the American Association for the Study of Goiter.

We will thank you for any publicity you can give the meeting.

Yours truly,
J. D. Moschelle, Secy.

Annual meeting of the American Association for the Study of Goiter, Bloomington, Illinois, January 23rd, 24th and 25th, 1923. Hotel Headquarters—Illinois Hotel.

Operative Clinics at St. Joseph Hospital and Mennonite Hospital. General Sessions, Exhibits and Registration at the Unitarian Church, corner of East and Jefferson streets, one block east of Square. Some space for exhibits will be available free to advertisers in State Journals.

PRELIMINARY PROGRAM

The complete program will be ready January 10th.

First Day

Wednesday, January 23, 1024

Operative Clinic—featuring different forms of Anaesthesia—8:00 A. M., St. Joseph Hospital.

1—Two thyroidectomies, Local anaesthesia.

2—Two resections thyroid, Nitrous Oxide-Oxygen anaesthesia.

3—Two thyroidectomies, Ethylene Oxygen anaesthesia.

4—Two resections thyroid, Ether anaesthesia.

Physicians attending clinic can register at the Hospital Wednesday morning.

Operative Clinic, 2:00 P. M., Mennonite Hospital.

1—Thyroidectomy, Local anaesthesia.

2—Ligation Inferior Thyroid, Local anaesthesia.

3—Ligation Superior Thyroid, Local anaesthesia.

4—Resection thyroid, Ethylene-Oxygen anaesthesia.

6—Ligation one Inferior and one Superior thyroid, Ethylene Oxygen anaesthesia.

9:00 P. M.—Smoker.

Second Day

Thursday, January 24, 1924

7:00 to 7:40 A. M., St. Joseph Hospital—Demonstration of Fluoroscopy of the Heart, Thymus and Thyroid—Dr. H. W. Grote, Bloomington, Illinois; Dr. Frank Deneen, Bloomington, Illinois.

General Session — Unitarian Church.

8:00 A. M.—Diagnostic Clinic, Dr. Andre Crotti, Columbus, Ohio—Non-toxic parenchymatous goiters; Toxic parenchymatous goiters; Non-Toxic diffuse colloid goiters; toxic diffuse colloid goiters; Non-Toxic nodular colloid goiters; Toxic nodular colloid goiters.

9:00 A. M.—Demonstration of gross Pathology of the Thyroid. Exhibition of specimens. Dr. Lloyd Arnold, Professor of Pathology, Loyola University of Medicine, Chicago, Illinois.

10:00 A. M.—Address, Dr. H. S. Plummer, Mayo Clinic, Rochester Minn.

11:00 A. M.—Address, Dr. Wm. Englebach, St. Louis, Missouri; "Relation of the Thyroid to the other Endocrine Glands." Illustrated by Lantern Slides.

1:00 P. M.—Address, Commander Wm. Seaman Bainbridge, New York; "Goiter in the Navy and in Europe."

2:00 P. M.—Address, Dr. Andre Crotti, Columbus, Ohio; "The Etiology of Endemic Goiter and of Toxic Goiter."

3:00 P. M.—Address, Dr. Wayne Babcock, Philadelphia.

4:00 P. M.—Address, Dr. George Van Amber Brown, Detroit, Michigan; "Comparative Anatomy of the Thyroid."

5:00 P. M.—Address, Dr. Edw. H. Skinner, Kansas City, Missouri; "X-ray and Goiter."

Banquet, Illinois Hotel, 7:00 P. M., January 24th, 1924.

Third Day

Friday, January 25th, 1924

Unitarian Church

7:00 A. M.—Exhibition of cases and discussion.

8:00 A. M.—Diagnostic Clinic, Dr. Wm. Wayne Babcock, Philadelphia.

9:00 A. M.—History Clinic.

10:00 A. M.—Address, Dr. Joseph L. De Courey, Cincinnati, Ohio.

10:30 A. M.—Radium Treatment, Dr. F. M. Hagans, Lincoln, Illinois.

11:00 A. M.—Medical Treatment.

11:30 A. M.—Prevention.

1:00 P. M.—Goiter in Nevada, Dr. Thomas W. Bath, Reno, Nevada.

1:30 P. M.—Incipient Goiter vs. Incipient Tuberculosis, Dr. Roswell Pettitt, Ottawa, Illinois.

2:00 P. M.—Round Table Discus-

sion, five minute talks.

3:00 P. M.—Movie Clinic, Goiter operations.

Preliminary Program

The complete program will be ready January 10th.

Officers — President, Dr. E. P. Sloan, Bloomington, Ill.; Vice President, Dr. Geo. W. Newell, Burlington, Wis.; Secretary, Dr. J. D. Moschelle, Indianapolis, Ind.; Treasurer, J. R. Young, Terre Haute, Ind.

STATE AND GENERAL NEWS

McDOWELL COUNTY SOCIETY

J. HOWARD ANDERSON, Reporter

With the December meeting of the McDowell County Medical Society another successful year of work has become history. The event was most delightfully celebrated by a gathering of the Clan at Welch Hospital No. 1 on Wednesdya evening the 12th.

When President Woolwine called the meeting to order in the spacious offices of the Hospital, the following members responded to roll call: Drs. Woolwine, Daniels, Vermillion, Stevens, Kirkpatrick, Williams, Killey, Sr., Killey, Jr., English, Quincy, Thomas, Peck, Camper, Tutwiler, Cockrell, Hughes, Sameth, Brewster, Rutherford, Livingston and Anderson. While Dr. J. B. Kirk of Bluefield, who was one of the charter members of the Society and now President-elect of Mercer County Medical Society, and Dr. Lilly, who is connected with the famous McDowell County Dental Clinic, were present as guests of honor.

After the reading of the minutes of the last meeting, and their approval, Dr. A. G. Rutherford, under the order of Clinical Cases, reported a most interesting case of Tetanus. He further gave a most concise and up-to-date resume of the Etiology, Pathology, Diagnosis and Treatment of this disease. This paper was discussed by Drs. Quincy, Kirk, English, Camper, Stevens, Livingston, Williams and Anderson, and was then closed by Dr. Rutherford. The discussions simply stressed the facts that as the specific causative agent was an anaerobic germ and thrived especially in the absence of oxygen and in the presence of oxygen-consuming pus-producing organisms, therefore wide incision of puncture wounds, with injection in the wound of oxygen or peroxide of hydrogen and application of hot moist antiseptic dressings, together with early injection of anti-tetanic serum was the line of treatment par excellence.

Secretary Anderson then presented the prospective plan of holding an eight weeks Post-Graduate Course in Pediatrics at Welch Hospital this summer under the auspices of the Medical School of the University of West Virginia, and in a few minutes succeeded in getting the required number of signatures to the application blank to insure the establishment of the Course.

The matter of the Society extending pecuniary aid to the cause known as American Aid for German Medical Science was then presented by the Secretary, but after some discussion was tabled.

The annual reports of the Secretary and the Treasurer were then made and approved. They showed the Society in a flourishing condition having added six new members during the year, and closing the year with a balance of $424.75 in the treasury.

The annual election of officers then took place resulting as follows: President, H. G. Camper; Vice-President, H. L. Kirkpatrick; Secretary, F. B. Quincy; Treasurer, J. L. Sameth; Censors, W. B. Stevens, '26, A. G. Rutherford, '25, J. Howard Anderson, '24; Delegates to State Association, A. G. Rutherford, S. A. Daniels; Alternates, W. L. Peck, E. Vermillion.

At this juncture the proceedings were interrupted by an invitation extended by Dr. Rutherford to adjourn to the dining room where Mrs. Rutherford, assisted by Miss Lynch and Miss Barnette, had spread the festal board. The room was attractively decorated in the proverbial Yuletide hangings of red and green, while the snow white tables bore out the same color scheme with red carantions predominating in the dainty arrangement. After a most delicious banquet of fruits, salads, nuts and sweet-meats, the jovial M. D.'s, over their cigars, cigarettes, and coffee, became quite genial and turned to the feast of reason and the flow of the soul. Dr. Kirk, the first President of the Society, reminisced of the early days in the coal fields when Dr. Killey, Sr., Dr. Daniels and himself as charter members organized McDowell County Medical Society, the first organization of its kind in southern West Virginia. Dr. Rutherford read a list of the guests of the Society meeting ten years ago. Dr. Anderson spoke of the part the Society played and is playing in maintaining the high standard of medical and surgical work in the coal fields and its relation to the State Association.. Thus a veritable round table developed. As the hour grew late Pres. Woolwine in a few well chosen words thanked Dr. Rutherford for his hospitality, the ladies for the dainty repast and beautifully artistic arrangement, and declared the Society adjourned until January of the New Year.

OHIO COUNTY

HARRY M. HALL, Reporter

Dr. Arthur J. Davidson talked to the Society on Saturday evening, November 17th, 1923. The Doctor gave an admirable clinic for crippled children at the Ohio Valley General Hospital during the day. This was under the auspices of the Wheeling Rotary Club. Otto Schenck, President of the State Society for Crippled Children, was in charge.

The Doctor is quiet, practical and exceedingly considerate of the feelings of his patients. He made an unusually good impression, and the Philadelphians, who are as loyal to that city as a Californian is for his wonderful climate, were satisfied. When they are satisfied with one of their own number, you are sure to be—as they require a lot of their alumnae.

The lecture in the evening drew out a fine crowd, and the discussion was by three members — always good "ON THEIR FEET." When you come to think of it what is better than a "good discusser"?—almost equal to a good first assistant at an operation. Schwinn, Hupp, and Fulton are a good trio,—all different in their technique of approach, but always to be depended upon to draw a return from the speaker, which is what they are for. The report takes up some space with talk for the obvious reasons that follow.

Dr. Davidson talked about the feet. Now every once in a while you may go into a big city and come along to an office in a leading building which is so crowded you are prone to think it is an irregular practitioner's emporium. It turns out it is not someone who has graduated from a Radio School, but it is a simple chiropodist with yards of adhesive tape, late designed pads and some icthyol and iodine. Perhaps a Rolles-Royce in front is the "above mentioned's" car.

Now the Doctor showed conclusively that it takes as much brains to correctly diagnose and cure feet as it does the other end—and perhaps with more far reaching results. One Society ought to tell another of good things. This is information! When your Society gets a little weary of slight variations on old operations, serums which haven't worked yet, elaborate infant feeding recitals, and complex laboratory tests (all good in their way), and wants a change, this reporter suggests Dr. Davidson. The foot is complex and very essential. Its diseases require as great a skill and technique as the abdomen. Its treatment is a high grade profession with great demands. A foolish and blind profession allows it to be superficially touched. What is the matter with the medical profession?

Dr. Davidson called attention to removing the outer offending portion of the metatarsal bone in bunion operation but not the articulating surface. Of removing a large portion of the metatarsal bones including the heads, leaving an intervening space (with no bones) and making a flail joint, in "claw foot" with almost 100% results—of shoes with metal and wood for the low arch, of not wearing high last low shoes in so-called "weak ankles"—of removing heads of the metatarsal bones, where the little nerve is involved (this for the middle three) but to never remove the heads of the first or the fifth if possible, as you break the supports of the transverse arch. All this with excellent pictures and slides. You may have read of these, but do you recall them? You people who get up State programs ought to recall how many patients come to a doctor to get relief for these ailments—don't get it and fall back on a chiropodist, who of course merely relieves them. If they did they would let Dr. Davidson come in and save the day and make a lot of patients throughout the State happier in their home life, with a deal less profanity—BY SIMPLY SHOWING DOCTORS HOW TO CURE THE FEET OF THEIR TROUBLES.

On November 9th, "Some Problems of Immediate Interest to the Profession," was delivered by H. M. Hall, M. D. It used to be said of "Madame Banermeister," that she was one of the most useful singers an opera manager could have about. I do not believe that she ever was a star, or had a leading part, but she was great as a "filler in," and when anybody had oedema of the glottis of the mild kind, that singers, especially of the Mary Garden type, are prone to get at the last moment, she came in handy. The program of the Society having just such a little emergency accounts for the above. There were some who wanted the Society to pay for the gasoline used in coming and going, but much as the President and others would like to be obliging, there

is nothing of the sort in the by-laws.

Dr. A. J. Noome, Dr. Hupp and several others like Dr. Ambrecht—friends of the reader—got up and spoke on the problems presented. There is one nice thing about "filling in" and that is that irrespective of the value of the paper, you get sympathy. You let on you don't like it, but of course, like everyone else—you do.

Friday, November 30th, Dr. W. D. Inglis, Columbus, O., Professor of Obstetrics, Ohio State University, talked on the subject of "Anticipating and Conducting the More Common Dystociae."

The writer had almost forgotten what dystocaie meant, but before the evening was over he didn't Dr. Inglis is like one of these spit ball pitchers with a slow curved ball that the batter takes a crack at when it is three feet from the plate. When he was half way through his lecture I'll warrant half the crowd was not sure he was really in the box. He talked off hand. Brought a paper but didn't read it. It's my impression that any fellow who does that is always good. He gave you the impression he wasn't really doing anything. Instead of an elaborate lot of manoeuvres with forceps and axis traction contrivances he gave directions of such simplicity that some men were not sure they had heard a master talk. It wouldn't surprise me to hear someone say he really had not heard anything. His statistics are so overwhelmingly large—you know so well of his success and reputation—well you have to accept him. But had a local man presented the ideas—well I have my doubts, and all because only the great can be simple, practical, and common sense, and get away with it. Now for the proof. He talked of the (1) Slow Presentation with Large Head, (2) The Pre Eclamptic, (3) Occipito Posterior. For No. 1 give patient morphine scopolamin. Pituitrin. Morphine to quiet patient. Wait 24 to 36 hours if necessary. Dilate cervix. Why? To make a little pouch for the sac to come down in and make a natural "bag dilator." This stimulates sensitizing of the cervix and pains. Pituitrin then in three minim doses. Pituitrin does not make contractons. Someone wanted to know about baby's lungs. He reminded them the lungs were not in action. (scopolamin) Quinin does not produce pains. Stimulates progress. Advises every one to have a nurse, (practical if necessary, one you have trained yourself to do your waiting). Pre-Eclamptics—do not let go to full term.

Slow presentation of primipara with ruptured membranes. Wait again. Dilate cervix even if you have to rupture it a little. He is a great believer in catharsis for all cases, especially "Pre-Eclamptics" and Eclampsia. Maximum magnesium sulphate and castor oil and croton oil with enemas of sodium bicarbonate. His catharsis was so essentially complete that several men became alarmed at the mere recital. When you get head down, turn it as usual but don't try to do all the turning in one or two actons. Eclampsia—Reduce respirations to 8 or 9 a minute by morphine as a "Solution of all the alkaloids of opium," or use the Dublin method of chloral and that of Stroganoff's. Give cathartics by stomach tube. He condemned meddlesome obstetrics, and blamed the slow reduction of mortality statistics in ob-

stetrics to it. He paid his respects to Podalic Version and Caesarian Section in the hands of any but good operators, and was not especially enthusiastic about them. Admitted their place, but did not make it very larg.e Someone asked him what to do when you told the woman to wait 36 hours, and her husband and she told you that the competitor down the street delivered people in two hours with chloroform and pituitrin. He admitted it was rather trying but he said he told them, "I know my business. I am thinking of your future. If you want a meddler why get him."

The reporter has gone into this program at length to merely show you that many things you were getting ready to quit doing are still very much in vogue and quite the style, and that you can still go ahead and let the woman have her child without help, and meet your colleagues without a hang-dog look.

Dr. Robert Reed, Jr., recently secured an apponitment as an interne in U. P. Hospital of Philadelphia, eight out of 135. He secured the surgical service. While of course to the lay mind this doesn't equal the West Virginia's great record in football in the East, yet there are others who believe it is just as fine an accomplishment as a young West Virginian can gain. As for his father, every beggar on the street can get a dime in his tin cup from him at the present writing.

The Academy of Medicine bought another house. Paid over part of the money. Just now the wife won't sign. Just at present too—the Society don't know whether to erect a monument to irregular practitioners or the "God of Real Estate." But don't worry—some kind of a house will be here when you visit us in May.

We are sorry to report that Dr. Henri P. Linz has not received any new appointments—which is to say none have been.

It is with satisfaction that we note that a doctor was practicing in Connecticut who had been turned down in West Virginia. Up here we haven't any of that kind, and it applies evidently to all the State as well.

Dr. R. D. Roller, Jr., was elected President of the Kanawha Medical Society, Dr. J. Lon Carter, Vice-President, and Dr. W. F. Shirkey, Jr., Secretary.

On October 29th at the meeting of the Barbour-Randolph-Tucker Medical Society, held at Elkins, W. Va., the following officers were elected for the coming year: Dr. C. H. Hall, Pres., Dr. C. B. Williams and Dr. J. L. Miller, Vice-Presidents, and Dr. J. C. Irons, Secretary-Treasurer. A report on the death of Dr. Hoff was read, and directed to be sent to the West Virginia Medical Journal. The January meeting is to be held in Elkins.

Charles C. Lucas, Kearneysville, W. Va., University of Maryland School of Medicine, Baltimore, 1886, aged 62, died October 20.

Dr. F. LeMoyne Hupp and wife were in Huntington for a few hours on their way here from the meeting of the Southern Surgical Association which was held at White Sulphur Springs.

Dr. C. M. Hawes, Huntington, has returned from a duck hunting trip in Virginia. He claims to have made some wonderful wing shots. His friends are skeptical as to the game bagged but agree that it cost

him nothing to make the trip. His ability as a sportsman in some lines is admitted. It might be fair to warn the brethren in Wheeling that he intends attending the annual meeting there and does not expect to pay any expenses. A word to the wise men there should be sufficient.

Dr. M. B. Moore of Huntington has been in Baltimore recently.

The Association of Surgeons of the Chesapeake and Ohio Railway

Held their seventh annual meeting at White Sulphur Springs, W. Va., November 16 and 17, under the presidency of Dr. S. W. Hobson, of Newport News, Va. There was an attendance of over 200 and the sessions were interesting and pleasant throughout. On the first afternoon, the members of the Association presented Dr. W. T. Oppenhimer, of Richmond, Va., chief surgeon of the road, with a motor car, as an expression of their esteem and affection, the presentation speech being made by Dr. J. M. Salmon, of Ashland, Ky. Officers elected for the ensuing year are: President, Dr. C. C. Coleman, Richmond, Va.; vice-presidents, Drs. L. L. Bigelow, Columbus, O., J. E. Cannaday, Charleston, W. Va., H. W. Porter, Louisa, Va.; secretary-treasurer, Mr. George E. Meanley, Richmond, Va. Members of the executive committee are: Drs. W. E. Vest, Huntington, W. Va., H. U. Stephenson, Richmond, Va., C. C. Garr, Lexington, Ky., E. H. Griswold, Peru, Ind., Eric Twachtman, Cincinnati, O., and W. R. Laird, Montgomery, W. Va.

New Dean of Johns Hopkins Medical School

Dr. Lewis Hill Weed, professor of anatomy at Johns Hopkins University Medical School since 1919, has been elected dean of the Medical School to succeed Dr. J. Whitridge Williams. Dr. Williams, who has been dean of this school for the past thirteen years, recently resigned that he might more fully devote his time to the new women's clinic of Johns Hopkins Hospital, of which he is director.

Southern Medical Assocaition

At the final session of the Southern Medical Association held at Washington, D. C., November 15, Dr. Charles L. Minor, Asheville, N. C., former president of the National Tuberculosis Association, was elected president. Other officers elected were: Dr. Robert C. Lynch, New Orleans, vice president; Dr. Thomas A. Groover, Washington, D. C., second vice president; C. P. Loranz, Birmingham, Ala., secretary-manager, and Dr. Marye Y. Dabney, Birmingham, editor of the association's journal. Next year's convention will be held in New Orleans. On the last day of the session, Mrs. Coolidge received the ladies and the President received the entire group attending the convention. The members had previously adopted a resolution declaring they would have the President forego the strain of handshaking. In a brief address, President Coolidge commended the medical profession for safeguarding the health of the nation, declaring that, public health lies at the foundation of all public welfare. "Unless the public health," he said, "is properly conserved and protected, there is very little use for any ac-

tivity looking toward the promotion of public welfare." The President's address was in the form of a welcome. He spoke of his high regard for the medical profession. He said, because of the high type of men, their advice has been eagerly sought, and has helped to make better citizens.

Date of Annual Session of A. M. A.

The date of the next annual session in Chicago was fixed tentatively as May 19-23, 1924. Later arrangements were made to hold all of the sessions as well as the various exhibits on the Municipal Pier. However, an investigation showed that the temperature during the third week of May for the last five years—except 1921—has been too cool to insure comfort in an unheated building such as the Municipal Pier. It was impossible to select a date during June because of the uncertainty as to the time of the Republican National Convention, which it seemed likely would be held in Chicago. Now, that it has been definitely announced that the Republican National Convention will be held elsewhere, the Board of Trustees has fixed the date, June 9-13, 1924.

Dr. and Mrs. Edward Hubbard spent the holidays in New Orleans.

Isidore I. Hirschman, M. D. F. A. C. P., announces the opening of offices at 1140 Fifth avenue, Huntington, W. Va. Practice limited to internal medicine.

COUNTY SOCIETY REPORTS

November 22nd, 1923.

A regular meeting of the Cabell County Medical Society was held in the Grill Room of the Hotel Farr on the evening of November the 22nd, 1923. The meeting was called to order by the President, Dr. R. J. Wilkinson.

The minutes of the previous meeting were accepted as read, there being no alterations, additions or amendments.

The bills as presented were ordered paid.

The voting on the amendment to the constitution providing for an increase of the dues to $10.00 per annum, exclusive of the dues to the State Society, was passed unanimously.

The Society had as its guests for the evening Dr. Gordon F. McKim, of Cincinnati, Ohio, who presented a very interesting paper on Prostatic Hypertrophy, and Dr. G. G. Stewart, who presented in some detail a paper on the Pediatrics of the Newly-Born. Both papers were thoroughly discussed by quite a large number.

There being no further business the meeting adjourned to the Matthews-Bobbitt Urological Clinic where the society were guests at an excellent smoker.

Attendance at meeting 50.

OSCAR B. BIERN, M. D.,
Secretary.

Bluefield, W. Va.,
Nov. 23d, 1923.

The Mercer County Medical Society enjoyed the annual banquet in the private dining room of the new Hotel West Virginian with nineteen members and seventeen visitors

present, as follows: Drs. R. O. Rogers, O. S. Hare, W. H. and C. T. StClair, J. B. Kirk, W. W. Harloe, W. C. Slusher, E. W. Horton, B. P. Ratcliffe, John Bird, S. J. Kell, Thos. E. Peery, David Littlejohn, W. H. Wallingford, Ben Bird, J. R. Vermillion, T. E. Vass and H. C. Hays; Dr. C. J. Reynolds and Dr. Gordon of Bluefield, and Dr. E. C. Dyer, of Jewel Ridge, Va.; Mr. and Mrs. Elmer, Mrs. Thos. E. Peery, Miss Bracey, Mrs. Littlejohn, Mrs. W. H. StClair, Mrs. C. T. StClair, Mrs. Harloe, Mrs. Slusher, Miss Harrell, Mrs. Noell and Mr. Fanning, and your secretary H. G. Steele, yes, and Miss Porterfield.

The banquet was served in eight delicious courses and all were well filled. Many expressed themselves as to what a fine hotel we have in Bluefield and how delightful its patrons are served.

The ladies went to the mezzanine floor where they enjoyed chatting and listening to the sweet music played by the orchestra while we remained in the dining room and held our regular monthly meeting and annual election of officers.

The meeting was called to order by the President, Dr. John Bird, who has not missed a meeting this year, at 9 o'clock p. m. The secretary read the minutes for the last four meetings.

Under clinical cases Mr. Elmer, the city bacteriologist, was called upon to tell us just what he was doing to help Bluefield and its physicians along his line of work. He came here in 1922 and is doing his utmost to carry on a health laboratory. Milk and water are examined often and work is done in the laboratory to assist the physicians in making diagnoses. He said water here is very good but it could be improved upon if the city owned the water works. The milk supplied in Bluefield will be improved upon after the new ordinance goes into effect, which will be soon. The diagnostic work we are doing for you particularly is in diphtheria, typhoid, paratyphoid, tuberculosis, malaria, gonorrhea, syphilis, chanchroid, etc. All this work is free to the physicians of Bluefield.

Under the regular program, Dr. T. E. Vass read us a good report of Acute Haemorrhagic Pancreatis with reports of three cases seen in St. Luke's Hospital the past year. While discussing the paper Dr. R. O. Rogers said the symptoms of abdominal pain and shock are out of all proportion. Occasionally we have about the same symptoms in rupture of the billiary tract, operate on these cases and they get well.

Dr. W. H. StClair said they have had a few cases of acute pancreatitis at the Bluefield Sanitorium. He mentioned traumatism as one of the causes. They had one of these cases they opened and drained and he died in a few hours. Relating to Dr. Rogers' case, he said pancreatic fat and bile were found in the abdomen along with adhesions, the gall-bladder and pancreatic duct were ruptured, embolism of the inferior mesenteric artery and gangrene of the intestines. The mortality in these cases is very high. Dr. Vass is to be congratulated in one of his cases getting well.

Dr. Wallingford said he had had a case thought to be acute pancreatitis but was not; when he operated on this patient it was found to be a large ulcer of the stomach which had ruptured.

Dr. Steele said he saw one of Dr.

Vass' cases about an hour after the first symptoms came on and he took it to be a case of cholecystitis or cholelithiasis. In closing the discussion Dr. Vass said you cannot say for certain that you have a case of pancreatitis until the abdomen is opened.

The next paper was by Dr. W. W. Harloe of Matoaka on "A Dressing for Burns." He introduced something new to the members of this society when he told what excellent success he has had in treating burns with Chloretone Inhalant. This paper was very short and to the point and brought out considerable discussion by the following: Dr. Hare said he thought this a very desirable dressing for burns, easily removed, and would do very little damage to the tissues. Dr. Slusher asked if Dr. Harloe uses this Chloretone throughout the course of treatment. Dr. Kirk said in his 28 years of experience he had no use for the picric acid treatment beyond the first degree burns. One of his assistants used it on a patient severely burned and on the fourth day he was out of his head and had considerable rise of temperature. In extensive burns his best results were obtained from the use of old fasioned Carron Oil. For a cleansing agent he advised the use of a weak solution of lime water.

Dr. Wallingford said of Dr. Harloe's paper, it was short, to the point and he told us something. In using the paraffin we put it on with a paint brush.

Dr. Wade StClair said he opened up a subject we need every day. He spoke of the deformities and how they might be prevented. The man at home ought to give these cases more attention. Children with deep burns in the arm pits should be put up with their arms extended, and never with them bound down to their sides as I have seen in one or more cases. The legs should be put up in the extended position. In burns about the neck high pasteboard splints should be worn to prevent contraction of the muscles and deformity. He thanked Dr. Harloe for this paper.

Dr. Kirk spoke of two persons burned with powder. One went back into Virginia and no one looked after him in particular. His thumbs were drawn in toward the palms of his hands and his chin was drawn down almost onto his chest. The one he treated at home had no deformity and he had good use of his hands.

Dr. Horton said he uses the picric acid dressing some, but he has had good results from the electric light treatment.

Dr. Hare thought the paper read by Dr. Harloe very constructive from a therapeutic standpoint. He asked if the doctor ever got chloretone poisoning.

Dr. John Bird said he got good results from the use of surgical oil.

In closing the discussion Dr. Harloe said he uses the chloretone inhalant for the primary treatment only and not throughout. It prevents less deformity, flexion and extension is easier, and not so much tendency for the formation of scar tissue. The surface of the wound can easily be cleaned by spraying it with ether. The cost of the chloretone inhalant is $1.35 per pint, by gallon lots, cheaper.

The post graduate course as offered by the medical men at the West Virginia University was tabled.

Drs. Harloe, Hare and J. R. Vermillion acting as censors for the evening, reported favorably on the application of Dr. C. J. Reynolds of Bluefield who was unanimously elected a member of this society.

The society authorized the secretary to pay all bills that have been charged against the society up to this time.

This being the regular time for the election of officers for the year of 1924, resulted as follows. The following were duly elected: Dr. J. B. Kirk, Bluefield, President; Dr. W. W. Harloe, Matoaka, Vice President; Dr. David Littlejohn, Bluefield, Secretary; Dr. C. T. StClair, Bluefield, Treasurer; Dr. T. E. Vass, Bluefield, censor for three years; Delegates to the 1924 State Convention are as follows: Drs. W. H. Wallingford, Princeton; Dr. Wade H. StClair, Bluefield, and Dr. John Bird, of Rock (the latter was the second named).

The President appointed the following as an Auditing Committee: Drs. Vass, Hare and Reynolds.

Adjourned at 10:55 p. m.

H. G. STEELE, Secretary.

PROPAGANDA FOR REFORM

The Composition of Some Complexion Clays.—Next to nostrums sold for the alleged rejuvenation of the male, the most popular form of contemporary charlantary lies in the exploitation of alleged beautifiers for the female. During the last year or two the cosmetic market has been glutted with a veritable avalanche of so-called complexion clays and face packs. The A. M. A. Chemical Laboratory has analysed the following preparations of this class: "Terra-derma-lax," "Boncilla," "Domino Complexion Clay," "Mineralava," "Ryerson's Forty Minute Beauty Clay." The laboratory report shows that each of the preparations was a bluish mass of the consistency of soft putty and resembled a mixture of clay and water. With one exception, no substance other than clay, water and perfume was found in the preparations. Domino Complexion Clay contained about five per cent of glycerine and about 0.2 per cent of a salicylate, probably sodium salicylate. The examination indicates that the clays analyzed are not high grade products, nor carefully purified before being used. (Jour. A. M. A., Nov. 10, 1923, p. 1624.)

Pregl's Solution.—It has been stated that Pregl's (isotonic) iodin solution is probably prepared by treating a solution of sodium carbonate with finely powdered iodin. When the iodin has dissolved, sodium chlorid is added and the solution diluted to a definite volume. The product is stated to contain sodium ions, free iodin, iodid ions, hypoiodite and iodate ions—this in addition to the carbonate and chlorid. A proprietary brand of this solution is sold in Germany as "Presoiod." All favorable reports of the therapeutic use of Pregl's solution have had their genesis from apparently biased sources. (Jour. A. M. A., Nov. 10, 1923, p. 1628.)

Iridinol.—The Council on Pharmacy and Chemistry reports that about fifteen years ago "Iridium (Medicinal)" was put on the market by the Platinum Co. of America, and the same company manufactured "Iridinol" which was marketed by the P. H. Potter Chemical Co. (now P. H. Potter and Sons, Inc.) New York. Both products

were, at that time, claimed to contain iridium and were marketed for a high price with grossly misleading claims for the efficacy of iridium as a therapeutic agent. Iridium (Medicinal) seems to have been abandoned, but Iridinol, advertised by P. H. Potter and Sons, Inc., as an "ethical preparation" continues to be sold. In the earliest advertising Iridinol was claimed to be a "nontoxic preparation of iridium." At that time the A. M. A. Chemical Laboratory was unable to detect the presence of iridium, and it was concluded that no very large amounts of iridium could have been present. Regardless of the presence or absence of iridium, there is not the slightest evidence for the therapeutic value of this metal in the conditions for which it is recommended by the exploiters of Iridinol. In the present advertising for Iridinol no definite claim is made for the presence of iridium. Instead the agents merely imply its presence. Iridinol is recommended by the exploiters in anemia, rheumatism, specific blood diseases, diseases of the nose and throat, of stomach organs, liver and kidneys, of the nervous system, diseases of children and as a systemic alterative. In view of the long-continued activities of P. H. Potter and Sons, Inc., for the use of Iridinol, the Council authorized publication of a report for the information of physicians who may be importuned to use it. (Jour. A. M. A., Nov. 24, 1023, p. 1807.)

Whooping Cough Vaccine.—In a series of articles on biologic therapy prepared under the auspices of the Council of Pharmacy and Chemistry, W. C. Davison (The Journal, Jan. 22, 1921, p. 242) concluded a review of the use of pertussis bacillus vaccine thus: "In summing up the prolific and somewhat contradictory literature on this subject, it may be concluded that injections of Bordet-Gengou bacillus vaccines may have a slight though unreliable prophylactic effect, and that therapeutic inoculations are of practically no value. Further experiments are necessary to raise this procedure from the limbo of nonspecific therapy." The Council on Pharmacy and Chemistry has accepted pertussis bacillus vaccine for New and Nonofficial Remedies, but states in regard to the usefulness of the product: "The evidence indicating that it is of value for either prevention or treatment is very questionable, and the reports are conflicting." (Jour. A. M. A., Nov. 24, 1923, p. 1809.)

BOOK REVIEWS

Rhus Dermatitis — From Rhus Toxicodendron Radicaus and Diversiloba. Poison Ivy, its pathology and chemotherapy. By James B. McNair, University of Chicago Press, Chicago, Ill. Price $4.15.

The lack of a rational treatment for ivy poisoning has caused James B. McNair to make a protracted study of the plant and the disease it produces. In Rhus Dermatitis he carefully treats the various phases of this important subject, discussing the complications of this common skin disease, its proper diagnosis, and twenty-nine or more remedies used with varying degrees of success in its treatment.

A complete analysis of cause, effect, and remedy has been attained by investigating from the three distinct standpoints of pharmacology, botany, and chemistry.

A study of the morphology of the plant has shown the method of formation, location, and means of transmission of the poison; pathological research has disclosed the action of the poison on the body; and a thorough botanical knowledge, combined with a chemical analysis of the poison, has tended to yield a rational remedy.

Ask your doctor, your druggist, your neighbor for the best remedy for poison ivy. They all differ. Mr. McNair has spent eight years to determine the answer, and has devised a remedy superior to twenty-nine others that he had subjected to every possible test.

Rhus Dermatitis is for the scientific man who is interested in authentic recommendations for the treatment of this poison ivy. You will find this book an important addition to your library.

Merck's Manual of the Materia Medica—Fifth Edition. A covenient, up-to-date, ready reference pocket book on the Materia Medica intended mainly for physicians' use. Previous editions are so well known that perhaps no extended review of its contents is necessary. The book is of wide scope and on broad lines. In addition to a thorough revision of the text, much of which has been rewritten, important new matter has been added to this edition, which contains 581 pages. It is divided into four parts.

Part I embraces drugs, chemicals and preparations—not confined to "Merck's" alone—and gives their synonyms, solubilities, physiological effects, therapeutic uses, doses, incompatibles, antidotes, and other useful information.

Part II, on therapeutic indications, summarizes the principal means of treatment for each form of disease, giving numerous standard prescription formulas. Interspersed are paragraphs on bedside diagnosis intended to afford a ready means of differentiating between and determining the more important diseases.

Part III classifies the various medicaments according to their physiological action.

Part IV comprises a comprehensive essay on poisoning and its treatment; an exhaustive dose table; a chart showing the diagnostic points of difference between the eruptive fevers; thermometric equivalents; approximate metric equivalents; a comprehensive chapter on urinalysis; a list of remedies which interfere with urinary tests; tables on infant feeding, and much other useful data.

The regular edition is bound in Flexible Linen Cloth (50c). For those who prefer a more durable binding, in view of everyday use as a pocket reference book, we provide a special binding in Artificial Leather ($1.00). Merck & Co., New York, P. O. Box 444, City Hall Station.

Habitual Constipation, Its Causes, Consequences, Prevention, and Rational Treatment—By Ismar Boas, M. D., Professor of Medicine in Berlin. Translated into plain, nontechnical English by Thomas L. Stedman, M. D., editor "A Practical Medical Dictionary," etc., former editor "Medical Record."

Dr. Boas is an eminent authority on intestinal diseases. In this book he describes in easily understood language the remarkable discoveries that Medical Science has made in late years concerning constipation and the practical benefits ob-

tained from its successful treatment. While not designed to supplant the service of the physician, the book offers a vast store of new and valuable knowledge for both medical men and laymen on the successful treatment of this almost universal disease. The work is broad in scope, extensively illustrated, and covers the subject with a thoroughness that is most satisfying to any one in search of authoritative information about constipation and its treatment or prevention.

Funk & Wagnallis Company, Publishers, 354-360 Fourth Avenue, New York, N. Y. Price $2.00.

The Medical Department of the United States Army in the World War—Volume 5. Military Hospitals in the United States. Prepared under the direction of Major General M. W. Ireland, M. D., Surgeon General of the Army. By Lieut.-Col. Frank W. Weed, M. C., U. S. Army. Washington 1923—Government Printing Office.

Diseases of the Skin—By Richard L. Sutton, M. D., L. L. D.; Professor of Diseases of the Skin, University of Kansas School of Medicine; Former Chairman of the Dermatological Section of the American Medical Association; Assistant Surgeon, United States Navy, Retired; Dermatologist to the Christian Church Hospital. With one thousand sixty-nine illustrations and eleven colored plates. Fifth Edition. Revised and Enlarged. C. V. Mosby Company, St. Louis, 1923. Price $10.00.

To one who has had a watchful finger on the pulse of dermatological literature for a decade and a half, the output for the past two years is as promising as it has been prolific.

The most pleasing feature of all has been the large percentage of contributions emanating from the younger generation of dermatologists, particularly here in America.

The fields that have been investigated since the publication of the fourth edition have been both varied and extensive. Syphilis continues to hold the attention of a large and able body of workers, so large in fact that the resulting literature is rapidly becoming too bulky for exhaustive consideration in any one volume treatise on dermatology. The importance of ringworm as a causative factor in many hitherto obscure cutaneous disorders is becoming generally recognized.

Descriptions of alastrim, itchy points, erosio interdigitalis blastomyecetica, poikiloderma atrophicans vasculare, melanotic whitlow, multiple benign tumor-like new growths of the skin, Rocky Mountain fever, the pink disease, perifolliculitis capitis abscedens et suffodens, wit-kop, ochronosis, carotinoid pigmentation of the skin, and hypodermiasis will be found under new headings.

Through the courtesy and generosity of the publishers, about one hundred illustrations have been added. A few of these have been used to replace older, and less characteristic, photographs. I am indebted to my son, Richard L. Sutton, Jr., for many of the photomicrographs. Without his enthusiastic aid and cooperation, they never would have been made. The six hundred new literary references have been carefully selected from a list of several thousand, and I trust will be of value to research students and others who may wish to exhaustively investigate any particular subject.

Tuberculosis in Infancy and Childhood—Lectures delivered at the Children's Hospital, Philadelphia, under the auspices of the Philadelphia Pediatric Society, by J. Claxton Gittings, M. D., Professor of Pediatrics in the Graduate School of Medicine, University of Pennsylvania; Visiting Physician at the Children's Hospital, Philadelphia; Assistant Pediatrist at the University Hospital; and Frank Crozer Knowles, M. D., Professor of Dermatology in the Jefferson Medical College; Clinical Professor of Dermatology in the Women's Medical College; Dermatologist to the Presbyterian and Children's Hospital; Chief of the Skin Dispensary in the Pennsylvania Hospital; and Astley P. C. Ashhurst, M. D., Associate Professor in Surgery, School of Medicine, University of Pennsylvania. With 23 illustrations. J. B. Lippincott Company, Philadelphia and London. Price $5.00.

In a general text book on pediatrics, it is impossible to devote more than a limited space to any one type of disease; and yet tuberculosis must be taken into consideration in the diagnosis of the vast majority of the subacute or chronic diseases of childhood, to say nothing of many acute disorders. Many special works on tuberculosis contain much valuable information concerning the disease in early life, but none of these books supplies sufficient detailed information, presented from the standpoint of the pediatrician. There seems to be an undoubted need, therefore, for a more comprehensive presentation of the diagnosis and treatment of tuberculosis in early life.

No book can take the place of actual experience, but at least it is possible to supply the tools with which the practitioner can "tackle his job"—for it is for the general practitioner that this book is intended. It is based upon a course of lectures which were delivered at the Children's Hospital, Philadelphia, under the auspices of the Philadelphia Pediatric Society. The subject of tuberculosis is introduced by a consideration of the various etiological factors—types of tubercle bacilli and their relative importance, childhood infection and immunity methods of dissemination and modes of infection. A chapter is devoted to the general principles of diagnosis of tuberculosis, from the carefully elicited history to the complete examination, including also the constitutional symptoms which are more or less common to all forms of the disease. The value of tuberculin in diagnosis is much greater in early life than at any other period, and detailed instructions are given for the application of the various tests. The clinical consideration of specific forms of tuberculosis begins with disease of the cervical nodes, with especial reference to differential diagnosis. Then follow the subjects of tuberculosis of the mouth, respiratory tract, ear, eye, pleura, heart and pericardium, gastro-intestinal tract, peritoneum, the viscera and the genitourinary tract. A chapter is devoted to tuberculous disease of the skin, and another to that of bones and joints, while the greatest space is given to miliary and generalized tuberculosis and meningitis, the most common forms seen in infancy.

Throughout the book the treatment of special forms of tubercu-

losis is considered seriatim, but the final chapter gives a full and detailed description of the management and treatment of the tuberculous child.

International Clinics—A Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynaecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the Medical Profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, Pa. With the collaborations of Chas. H. Mayo, M. D., Rochester, Minn.; Sir John Rose Bradford, M. D., London; William S. Thayer, M. D., Baltimore; Frank Billings, M. D., Chicago; A. McPhedran, M. D., Toronto; Sir Humphrey Rolleston, K. C. B., M. D., D. C. L., London; Seale Harris, M. D., Birmingham, Ala.; Hugh S. Cummings, M. D., D. P. H., Washington, D. C.; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; Charles Greene Cumston, M. D., Geneva; John Foote, M. D., Washington, D. C.; Charles D. Lockwood, M. D., Pasadena, Calif. Correspondents, A. H. Gordon, M. D., Montreal; James Burnet, M. D. Edinburgh. Volume III, Thirty-third Series, 1923. J. B. Lippincott Company, Philadelphia and London, 1923.

Diagnostic Methods—A guide for history taking, making of routine physical examinations and the usual laboratory tests necessary for students in clinical pathology, hospital internes and practicing physicians. By Herbert Thomas Brooks, A. B., M. D., F. A. C. P., Professor of Clinical Medicine, College of Medical Evangelists, Los Angeles, Calif.; formerly Professor of Pathology, College of Medicine, University of Tennessee, Memphis, Tenn. Fourth Edition. With fifty-two illustrations. C. V. Mosby Company, St. Louis, 1923. Price $1.75.

An Introduction to the Study of Mental Disorders—By Francis M. Barnes, Jr., M. A., M. D., Associate Professor of Nervous and Mental Diseases in the St. Louis University Medical School; Neurologist to St. Mary's Hospital; Consultant Neurologist to St. John's Hospital; Consultant Phychiatrist to the St. Louis City Sanitarium; Consultant Neuropsychiatrist to the U. S. Veterans Bureau, Ninth District, St. Louis. Second Edition. C. V. Mosby Company, St. Louis, 1923. Price $3.75.

It has seemed advisable to include in a single volume my "Introduction to the Study of Mental Diseases," inasmuch as they constitute but parts of the same subjects, the notes being but the clinical application of the matters contained in the introduction. Additional space has been given to the subject of mental hygiene, and social psychitry, the mental factor in industry and vocational guidance. Several chapters have been revised and considerably amplified. Other entirely new ones have been added and more extended consideration of certain types of mental diseases given.

The original intention of this book has been retained to put into the hands of medical students of a brief of psychiatric fundamentals with as little incumbrance of unnecessary details as possible. Also the needs of psychiatric social

workers and those engaged with the problem of personnel in industrial organization and with vocational guidance have been given consideration.

MEDICINE AND SURGERY

THE TOXEMIA OF SEVERE SUPERFICIAL BURNS

By BRUCE ROBERTSON, B. A. & Gladys L. Boyd, M. B., Toronto, Canada.
(Journal of Lab. & Clin. Med., Oct. 1923)

The investigations of these authors are very interesting, and it seems probable that an efficient surgical method for the treatment of severe burns may be evolved therefrom.

As they state, shock, hemorrhage, and toxemia have each been offered as theories to explain the cause of death in superficial burns. They used in their experiments, young anesthetized rabbits. An area of skin over the side of the thorax and abdomen, about 40x70 square millimeters in size, was prepared by shaving, and barium sulphite as a depilatory. The burn was produced by the application of hot metal plates to the prepared area. Typical symptoms followed the production of the burn in all cases. When the burned skin was removed, just after the burn was inflicted, the animal showed no symptoms of toxemia. When this burned skin was grafted onto a normal rabbit, typical symptoms of a burn developed.

They state that death from burning occurring during the first 24 hours is practically alweys due to primary shock; later than this, it is due to toxic shock. There is a toxin produced in burned tissue, in larger quantities in skin burns, which circulates in the blood, either in, or absorbed by the red blood corpuscles, and which causes the symptoms seen in bad superficial skin burns and in some cases death.

Extracts of burned skin are toxic. Extracts of skin burned post-mortem are innocuous. There is increased protein catabolism in burns, as evidenced by the increase of the non-protein nitrogen and urea nitrogen of the blood. The contents of burn blisters are not toxic. While citrated blood from burn cases is toxic, but the blood serum is not.

The toxic substance consists of two portions, one of which is thermostabile, diffusable, and neurotoxic; the other is thermolabile, colloidal, and necrotoxic. Chemically the toxins consists of primary and secondary proteoses.

No evidence of the production of antibodies against the burn toxin could be found.—F. C. Hodges.

A WARNING AGAINST THE USE OF ARSPHENAMINE IN THE TREATMENT OF SYPHILIS IN A HEMOPHILIAC

By JACOB ROSENBLOOM, M. D., Pittsburg.
(Journal of Lab. & Clin. Med., Oct. 1923)

The author reports a recent case, that of a colored man, who presented himself for treatment of a bleeding tooth socket, following an extraction. The bleeding had continued for two weeks, the hemoglobin being reduced to 40%, the red cells to 2.300.000. The Wassermann test was four plus positive, with the history of an initial lesion 15 years previous. The bleeding continued after the use of horse serum and transfusion, so 0.6 gm. of arsphenamine was injected. Within

an hour after the injection, bleeding from all the gums commenced, and continued in spite of all treatment including another transfusion. Two weeks following the injection of arsphenamine, he died from anemia due to hemorrhages.

Experimentally, it has been shown by various workers, that arsphenamine injections cause an incoagulability of the blood.

From these facts, it appears that hemophilia is a definite contra-indication in the treatment of syphilis by arsphenamine.—F. C. Hodges.

LIGHT THERAPY IN BONE TUBERCULOSIS

Until recently, the healing influence of sunshine, though seemingly indisputable, belonged among the apparently inexplicable potencies of "nature," for there were no indications that it could be directly implicated in any functional changes in the body. To remark, as has often been done in the past, that fresh air or sunshine or some other environmental condition "stimulates metabolism" or "promotes physiologic reactions" falls short of either explanation or adequate description of the phenomena observed. It has been a real step in advance, therefore, to discover that the modern light therapy can often be correlated with certain definite biochemical changes in the organism. Thus, it is known that exposure of rachitic infants to ultraviolet rays from a mercury vapor quartz lamp, or even to direct sunshine, tends to bring about marked increase in both the calcium and the inorganic phosphate content of the blood serum—factors on which healing is dependent. Good results have been attained in a similar way in the treatment of active infantile tetany during the last three years. In this disease, in which the calcium content of the blood serum also is low, suitable heliotherapy likewise brings about an increase in this element approximately to normal as was mentioned in a recent issue of The Journal.[1] Heliotherapy is today recognized as of demonstrable value in the treatment of tuberculosis affecting the bones; hence it was anticipated, in view of experience with rickets and tetany, that the superior efficiency of sunshine in the tuberculous malady might be due to an action on the phosphate metabolism similar to that occurring in rickets, which favored the deposition of new bone in the focus of disease, and thus produced a cure. Blood analyses made for a large number of patients who actually showed great improvement through exposure have given negative results to Tisdall and Harris[2] of Toronto. In many cases the concentration of phosphorus was found to be actually below that present in normal serum. Evidently the modus operandi of sunlight in osteogenesis, or at any rate in certain phases of healing processes seen in bone tuberculosis, is not yet apparent despite the hopes of impending explanation voiced in these columns.[1]—Jour. A. M. A., Aug. 11, 1923.

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1. Light Therapy in Tetany, Current Comment, J. A. M. A. 81:217 (July 21) 1923.

2. Tisdall, F. F., and Harris, R. L.: A Note on the Phosphate Content of Cases of Bone Tuberculosis Treated by Heliotherapy, Canadian M. A J. 13:177 (March) 1923.

COMPOUND FRACTURES OF LONG BONES OF THE EXTREMITIES

Seventy-five cases of fracture are analyzed by H. Earle Conwell, Fairfield, Ala. (Journal A. M. A., Nov. 10, 1923). The series is divided into fractures of the femur, twelve; of the tibia and fibula, forty-four; of the humerous, eight and of the radius and ulna, eleven. Eighty per cent of these fractures were in the lower third of bone, and in a large proportion, neighboring joints were involved; in almost 70 per cent there was considerable destruction of soft parts. Ninety per cent of these fractures were comminuted, and in more than 25 per cent of these cases there was a decided question as to whether amputation was justifiable. The routine treatment in these cases was as follows: Immediately after arrival at the hospital, morphin is given, if necessary. After immediate inspection of the wound, and after the extremty has been properly splinted, temporarily, the patient is prepared for major operation, if the physical condition is good. In cases of shock, the patient is put to bed and given physiologic sodium chlorid solution subcutaneously in large quantities, or blood transfusion, if necessary, and other usual routine treatment used in cases of shock. As soon as the condition warrants, the patient is taken to the operating room. As a routine measure, a thoroughly debridement is done, consisting in the excision of all macerated and severely traumatized soft parts, with the removal of entirely loose pieces of bone and foreign material of any kind. Then bone fragments are approximated as carefully as possible, usually by periosteal suture with chromic catgut or kangaroo tendon. When this is impossible on account of extensive comminution, muscle suture should be depended on for approximation. Absolute control of hemorrhage in these cases following excision of traumatized soft parts is extremely important, and the end-result largely depends on it. As soon as the operation is completed, fixation apparatus is applied, usually a molded plaster splint for fractures of the leg or forearm, or a Thomas Balkan frame with proper traction. When the roentgen-ray and physical examinations show that enough callus has formed to prevent the slipping of bone, the plaster splint is frequently removed and active and passive motion, with massage and hot baths, is used. Conwell is thoroughly convinced that the sooner this secondary treatment is begun, the better are results, although one must be sure that there is sufficient union to prevent slpiping of bone ends before regular massage is begun. It is an interesting fact that in over 90 per cent of this series of fractures, the Wassermann test was positive on a blood specimen taken on the date of injury; but that the second specimen, taken from ten days to two weeks after the injury, was negative in a vast majority of cases. In cases in which the second test was positive, antisyphilitic treatment was administered.

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THE PREOPERATIVE AND POST-OPERATIVE TREATMENT OF ENLARGED PROSTATE

Read at Annual Meeting, West Virginia Medical Association, Beckley, W. Va., 1923.

By W. A. FRONTZ, M. D.
Associate in Clinical Urology, Johns-Hopkins University. Urologist in Charge Urological Dispensary, Johns-Hopkins Hospital. From The James Buchanan Brady Urological Institute, Johns-Hopkins Hospital, Baltimore, Md.

So-called Prostatic Hypertrophy is one of the most common surgical conditions encountered in men past 50 years of age. The term "Hypertrophy" is of course a misnomer as it is now generally conceded that the process is an adenomatous tumor formation. Furthermore it is now recognized that the condition is one which does not involve the gland as a whole. The view probably most in vogue at present is that it represents an adenomatous formation arising in the sub-urethral glands of the prostatic urethra and that the prostate proper is compressed and pushed out by the enlarging masses coming later to form the so-called glandular capsule of the hypertrophy. This view would of course make prostatic hypertrophy an urethral rather than a prostatic disease. It is supported and rendered probable by the facts that the tumor masses always lie in the center of the gland just beneath the urethral mucosa and when growing into the bladder they are always surrounded by the internal sphincter. Furthermore in a third of the so-called cases of enlarged prostate there is present a middle lobe which develops from the submucous glands described by Albarran which lie just within the internal sphincter and which have no embryological or anatomical connection with the prostate proper. This lobe of Albarran is indistinguishable histologically from the masses found within the prostate. If we admit the origin of Albarran's

lobe from extra-prostatic tubules and that the lobe is identical in structure with the masses arising within the prostate proper, it strengthens very considerably the view that both formations have a similar origin, namely from urethral glands.

Up to the present time the etiology of enlarged prostate, as is true of tumor formation generally, remains unknown. There is only one fact that stands out clearly and that is that persons leading a strictly celibate life very rarely develop the condition. This would suggest a relationship between testicular activity and prostatic hypertrophy, which is further borne out by the fact that the condition does not develop in castrated individuals.

There has prevailed in the past an opinion which is probably still maintained by many that some relationship exists between gonorrheal infection and prostatic enlargement. This has been definitely disproved and it is generally recognized that individuals having a severe and long standing infection of the prostatic urethra which tends to sclerosis and destruction of the urethral glands are less likely to develop prostatic hypertrophy in later life.

The prostate is essentially a sexual gland and the adenomatous formation which occurs in elderly men would be of no importance whatsoever were it not for the obstruction to urination which so frequently occurs in hypertrophy. With the progressive development of urinary obstruction certain changes occur in the bladder and later in the upper urinary tract which must be investigated before surgical procedures are undertaken. One of the earliest changes that occurs is an increase in the musculature of the bladder which for a considerable period of time may keep pace with and compensate for the increasing obstruction to urination. It may be stated in passing that it is not so much the size of the gland as the position of the enlarged lobes that causes the obstruction. A small adenomatous mass no larger than a pea may quickly lead to a complete retention, while another individual whose orifice is unobstructed may develop a huge gland before serious obstructive results. With the increasing obstruction to urination the compensatory hypertrophy of the bladder musculature is finally overcome and there begins the development of residual urine and this may increase to one, two or more liters. The increasing intravesical tension occasioned by the residual urine is transmitted to the ureters resulting in the development of hydro-ureter. Later this back pressure involves the kidney and if not relieved may result in great destruction of renal tissue. A much more serious complication, however, than the damage to the kidney from back pressure is the onset of infection. Bladders which do not empty are notoriously prone to the development of infection which rapidly reaches the kidney in cases in which the integrity of the uretero-vesical valve has been destroyed. It is this combination of back pressure and infection which leads to the serious renal functional derangement so frequently encountered in these cases. As a result of this renal sepsis and absorption the general health suffers, the cardiac muscle degenerates and the vitality becomes lowered to such a point that

surgical interference becomes a serious risk.

Twenty years ago the mortality for prostatectomy was 20%. Today in certain clinics it is less than 5%. This reduction in mortality rate while in part due to improved operative technique and post-operative care is largely the result of a better understanding of the pathology of urinary obstruction together with the development of rational methods of treatment preliminary to operation. Too great care can not be exercised in a study of these cases. Prostatic obstruction occurs at a time of life when abnormalities of greater or less degree are the rule rather than the exception and the oversight of this fact by haphazard examination of the patient will very considerably augment the prostatectomist's list of failures. It is essential, therefore, that the preliminary study be most painstaking and include not only a general physical examination but careful and complete urinalyses, determinations of the amount of residual urine and tests of the functional capacity of the kidneys.

If the physical examination fails to demonstrate the presence of organic disease, if the blood pressure is normal, the urine free of pathological elements and the renal function satisfactory, the patient may be regarded as an excellent surgical risk and immediately operation advised with every assurance of a favorable outcome. To this rule, however, there is one exception whose neglect may have fatal consequences. The presence of a large amount of residual urine is of itself a contraindication to immediate operation. In such a case the bladder is frequently atonic, the ureters dilated and the kidneys the site of varying grades of hydronephrosis. Without appropriate preliminary treatment, operation may be promptly followed by the development of infection of the upper urinary tract and the onset of a rapidly fatal uremia.

The determination of the surgical risk from the standpoint of renal efficiency requires an accurate knowledge of the functional capacity of the kidney and in securing this information two methods are available. First the determination of the excretory capacity of the kidney by means of phenolsulphonphthalein and second the quantative estimation of the concentration in the blood of substances normally excreted by the kidney.

The phthalein test is now so generally employed that no explanation of the technique of its performance is necessary. It is our practice to give the phthalein intravenously, note the time of appearance in the urine and collect specimens at the end of an hour. The average normal output of the dye ranges between 45 and 60 per cent for this period of time. The test is usually repeated after two or three days and if the reading approximates that of the first test, the patient is considered a good risk from the renal functional standpoint. In cases in which the output of phthalein is lower, say 15 or 20 percent, in an hour, semi-weekly tests are run and operation is deferred until the percentage of output of the dye becomes stationary. If operation is carried out during a period of fluctuation of the output, that is to say, when the excretory capacity is unstable, the risk is very considerably increased. When a stationary pe-

riod is reached, the question to be determined is: Is the renal functional capacity now sufficiently stable as to render unlikely the development of post-operative uremia; or, if a chronic nephritis be present, is it so low that operation is contra-indicated. In arriving at this decision much aid is secured by determination of the blood urea.

The normal content of urea in the blood is subject to considerable variation. It varies normally from 20 to 40 mg. per 100 cc. Although a figure of 50 mg. cannot be considered abnormal in persons on a high nitrogenous diet. We have observed patients with definite impairment of renal function on a moderate protein diet whose blood urea ranged between 60 and 80 mg., who, following restriction of their diet would promptly reach a urea level below the upper limit of normal. The practical value of this point is that in the interpretation of the blood urea content in a given case, the diet of the patient should be taken into consideration. It is at once apparent that a blood urea of 50 mg. in a person on a non-protein diet has not the same significance as the same level of blood urea in a person whose protein intake is high. While the total estimation of function by means of phthalein will give us more or less accurately the amount of reduction in excretory capacity it does not necessarily tell us whether the excretory capacity is sufficient to take care of the elimination. It has been our experience that when the phthalein excretion is normal the blood urea will almost invariably be found at the normal level. When the phthalein excretion is reduced approximately one-half there may or may not be retention of the various substances in the blood; but when the output is markedly reduced, say to 10 or 15 percent, the blood urea will nearly always be found considerably increased and there will exist in many instances what may be termed an inverse parallelism between the degree of retention on the one hand and the excretory capacity in the other.

In prostatic obstruction the impairment in renal function is in most instances the result of long standing back pressure complicated in certain cases by infection. It has been learned by experience that the establishment of bladder drainage is usually followed promptly by an improvement in the renal derangement. This drainage may be obtained in one of two ways—by catheterization and by suprapubic cystostomy.

In the majority of cases the drainage afforded by catheterization accomplishes the desired result. The catheter is usually well tolerated and in those cases in which back pressure has played a role in any renal derangement that may exist, it is our custom to leave it in position throughout the period of preliminary treatment, changing it every third day. Bladder irritations of some non-irritating antiseptic, such as borc acid, are helpful in freeing the bladder of purulent deposits.

The sudden and complete withdrawal of large amounts of residual urine is not infrequently followed by a serious break in the renal compensation established against a long standing back pressure. Every urologist has observed patients with large residual urine whose output of phthalein rapidly diminishes and

whose nitrogen retention gradually increases for several days after the institution of catheter drainage. This so-called initial impairment of renal function came to be regarded as inevitable in this type of case. Shaw, working in our clinic, has recently made some very interesting observations in this connection. In a series of ten cases in which the residual has exceeded 500 cc. the retention catheter has been immediately connected with a device by which the intravesical tension can be maintained at any level desired. This consists of a "Y" glass tube which can be raised or lowered by means of a standard attached to the side of the bed. The urine passing up one leg of the "Y" must reach a certain level before it can escape through the other leg into the drainage bottle. The height to which the column of urine rises is noted at the time of admission and this level is maintained throughout a period of three days. The intravesical tension is now gradually reduced by daily lowering the "Y" tube until it reaches zero and its use is then discontinued.

It is as yet too early to draw any definite conclusions regarding the clinical valuation of gradually lowering the intravesical tension in these cases. In the small series in which it has been carried out the rapid improvement in renal function stands in rather striking contrast to the early period of renal instability which frequently follows the usual methods of catherization. It may be noted further that the hematuria which is so commonly met with and which is frequently of renal origin can be prevented by this technique. Infection of the bladder which is the invariable accompaniment of the retention catheter is further prevented by the introduction of an amount of Mercurochrome sufficient to keep a concentration exceeding 1-50000. When the intravesical tension is removed, however, and the bladder remains empty, infection occurs but at a time when it is less liable to involve the upper urinary tract.

There is a small group of cases requiring preliminary treatment in which repeated catheterizations or the use of a retention catheter is contra-indicated and the necessary drainage is secured by suprapubic cystostomy. Cases of marked cystitis in which the catheter is not well tolerated, vesicle calculi, and acute inflammatory processes of the urethra, prostate or epididymes are best treated immediately by suprapubic drainage. The bladder in these cases should be opened at as high a point as possible. This precaution is a valuable one as it not only facilitates the sometimes much desired enlargement of the wound at the second stage of the operation but diminishes the absorption of infection in the space of Retzius.

Throughout the period of preparatory treatment large amounts of water are given. Each patient is encouraged to take from six to eight litres in twenty-four hours. In cases in which the renal function is low and the kidneys infected the fluid intake may be advantageously augmented by normal salt solution given by hypodermoclysis. The value of large amounts of fluid is unquestionable in the reduced function produced by back pressure for besides facilitating the elimination of nitrogenous waste it is indispensable from a mechanical standpoint in cases of infection.

Hypertension per se is by no means a contra-indication to prostatectomy, in fact the majority of cases of enlarged prostate have at the time of their admission to the hospital a systolic blood pressure considerable in excess of normal. A certain number of cases following the institution of drainage show a gradual reduction in pressure which may be maintained. In other cases, however, the pressure remains the same. As pointed out by O'Connor in his interesting study of this question, operation should not be carried out during a period in which the pressure fluctuates and he recommends waiting until it has been stationary for at least four days.

Valvular and myocardial disease is by no means uncommon in this group of cases. So long as the heart is well compensated the presence of a cardiac lesion certainly offers no contra-indication to operation. It is needless to say, however, that in cases presenting signs and symptoms of a break in compensation, operation should not be considered until a restoration of function has been established. The blood pressure raising effect of nitrous oxide contra-indicates the use of this anesthetic; in cases of cardio-vascular disease ether is the anesthetic of choice.

The post-operative treatment of enlarged prostate will vary to some extent depending upon whether the prostate is removed perineally or suprapubically. The perineal cases are drained with a large rubber tube and the prostatic cavity, and not infrequently the vesical sphincter, are packed with several strips of gauze to control hemorrhage. Packing of the prostatic cavity usually accomplishes the desired result so far as hemorrhage in this region is concerned. Most troublesome and dangerous bleeding, however, may follow a tear in the mucous membrane at the posterior lip of the vesical orifice which is unavoidable in many cases. Geraghty's technique in handling all perineal prostatectomy cases is to grasp the posterior lip of the vesical orifice with Allis forceps and make gentle traction downwards. The rubber tube is now introduced and strips of gauze lightly packed between the tube and the mucous surface of the posterior lip of the orifice. The fixation of this region for the moment allows the gauze to be accurately placed and insures prompt hemostasis. The bladder is then irrigated and if there is no active bleeding the prostatic cavity is packed.

If the prostatectomy has been carried out suprapubically the bladder is drained with a large tube which is secured by a heavy ligature of silk taken through the skin. In many of the cases in which the adenomatous lobes are readily enucleated the bleeding is so insignificant that the hemostatic measures are unnecessary. In rare cases in which bleeding points are visible the vessels may be ligated. Where hemostasis is necessary, a number of methods for its accomplishment may be employed. In our clinic if the bleeding is unusually severe a large gauze pack is introduced into the prostatic bed and counter pressure against two fingers in the rectum is made for several moments. The hemorrhage is readily controlled in this manner. The pack is then gently removed and replaced by strips of gauze whose ends are

brought out through the suprapubic wound. In cases in which delayed hemorrhage is feared a large sponge in the grasp of a long Kelly clamp is left in the bladder, adequate pressure upon the vesical orifice to accomplish hemostasis being made if necessary.

In the perineal cases the gauze drains are left in for forty-eight hours. They are then carefully withdrawn piece by piece and if bleeding occurs their further removal is delayed from one to two hours. If no bleeding follows the removal of the last strip of gauze, the tube is withdrawn at the end of three hours. From this time on the treatment of the average case consists largely in keeping the wound clean. If the prostate has been largely an extravesical one the internal sphincter will rapidly regain its tone and the patient void his urine at intervals which gradually increase. In cases, however, in which the internal sphincter has been atrophied by the pressure of a large intravesical growth more or less incontinence usually persists until the perineal sinus is closed. In the suprapubic cases the gauze is removed after twenty-four or forty-eight hours; the large gauze sponge held by the Kelly clamp is left in place for a safe period, usually for two or three hours, after removal of the prostatic pack.

In both perineal and suprapubic cases warm irritations should be given twice daily through the anterior urethra with the idea of cleansing the prostatic cavity and bladder of clots and purulent deposits. In occasional cases because of a hypertonic external sphincter the fluid may not enter the bladder freely. This difficulty is usually overcome by carrying out the irrigation with the patient in a prone position with the knees and thighs sharply flexed. The practice of inserting a catheter into the prostatic urethra for purposes of irrigations during the first ten days should be condemned. The introduction of any instrument into this region during this period must very certainly increase the risk of hemorrhage and epididymitis. The average case begins to void more or less urine normally during the second week. If partial voiding of the urine is delayed beyond this time an instrument should be pressed. Not infrequently small flaps of mucous membrane exert a valve-like action in these cases which prevents the free passage of the urine and thus delays closure of the fistula. The introduction of a sound by the beginning of the third week is readily accomplished and this is usually followed promptly by the voiding of increasing amounts of urine per urethram. Exuberant granulations are best removed with the currette.

It has been our practice in suprapubic cases to connect the rubber tube with a Davis vacuum apparatus as soon as the urine is free of clots. This ingenious device exerts a very slight but continuous suction upon the bladder contents and the escape of urine around the tube is prevented. The patient is not only made comfortable but the wound healing is greatly promoted. At the end of five or six days the large tube is replaced by a catheter of smaller calibre which can usually be removed permanently during the third week.

The care of the operative wound whether it be perineal or suprapubic, is much the same. Frequent

change of dressing, irrigations and the daily application of Mercurochrome 220 in 1% solution usually suffice. Mercurochrome is particularly valuable in certain alkaline infections in which the wound is covered with a dirty slough, which greatly retards healing. The preparation exerts so specific an action in these cases that its routine employment in all prostatectomy wounds is recommended.

The most common post-operative complication of enlarged prostate is epididymitis. This condition usually makes its appearance during the second week at a time when the patient is beginning to void his urine per urethram. The patient is best treated by rest in bed, elevation of the testicles and an ice cap. In the majority of cases the acute inflammation subsides in from three to five days, rarely going on to suppuration. In the occasional case however suppuration occurs and incision and drainage of the epididymitis is necessary.

Since the institution of careful preliminary treatment in enlarged prostatic cases, acute infection of the upper urinary tract constitutes a less common postoperative complication. It is occasionally met with however and is usually ushered in by a sharp chill and temperature elevation which may range between 103 and 105. There may or may not be pain in the kidney region but it is usually possible to elicit tenderness on pressure over the renal area. The usual case is of short duration responding in the course of a few days to the introduction, either by mouth or by hypodermoclysis, of large amounts of fluid, catharsis, etc. The pyrexia occasionally resists these general measures and may, particularly in old and debilitated subjects, occasion considerable concern as to the outcome of the case. In these cases it has been our custom to rapidly catheterize the ureters, empty the pelves of urine and lavage with normal salt solution. In a number of cases this procedure has been followed promptly by a sudsidence of the acute process and the rapid drop in the temperature.

One of the most alarming of post-operative accidents is hemorrhage. It is most frequently noted immediately after operation or following the removal of the gauze pack. Occasionally it may be delayed for one, two or even three weeks in which cases it is usually the result of the extension of infection through the wall of a vein. In the suprapubic cases the hemorrhage is usually recognized promptly and may necessitate a reopening of the suprapubic wound and the application of pressure to the bleeding point. In the perineal cases if the blood escapes from the wound its source is most probably an extravesical one which is usually controlled by repacking the wound. The bleeding, however, is not commonly intravesical and arises from the posterior lip of the vesical orifice, in which case it may be necessary to reopen the wound and employ the technique noted above. In the rare case, these measures failing, a suprapubic cystostomy may be necessary. Fortunately these cases of delayed hemorrhage are uncommon and are rarely of so serious a nature as to require heroic measures for their control. It is fitting in this connection to emphasize the great value of blood transfusion in cases in which considerable blood has been

lost, and its prompt replacement usually insures a smoother and shorter convalescence.

Conclusions

The present low mortality for prostatectomy is in very large measure due to the careful study each patient receives before operation, particular attention being paid to the condition of the kidneys and the institution where indicated of suitable treatment designed to improve to the highest possible degree any impairment in renal function. In most cases of renal impairment, the condition is largely a functional one and is the result of back pressure induced by a chronically distended bladder. Catheter drainage usually accomplishes the desired result although in certain cases a suprapubic cystostomy is indicated. The functional value of the kidney is best determined by the phenolsulphonphthalein test. In cases, however, in which the phthalein output is low the degree of retention present is best furnished by the estimation of blood urea.

Hypertention, valvular and myocardial disease, when the heart is well compensated- very rarely contraindicate prostatectomy. Owing to the blood pressure raising effect of nitrous oxide, ether is the anesthetic of choice. The post-operative care varies only slightly in the perineal and suprapubic cases. The average perineal prostatectomy case is gotten up in a chair on the third or fourth day; the suprapubic case rarely before the end of the second week. Care of the wound consists of frequent change of dressing and the liberal use of Mercurochrome—220 is recommended. For the suprapubic case the Davis vacuum bottle is of great advantage when the bladder is free of clots. Bladder irrigations, twice daily, of any non-irritating antiseptic should be begun on the fourth or fifth day and continued throughout the patient's stay in the hospital. In certain cases urethral instrumentation is indicated but not before the tenth day. Acute epididymitis usually subsides in four or five days, the only treatment necessary being rest, suspension of the scrotum and an ice bag. The occasional case suppurates and requires incision and drainage. Acute infections of the upper urinary tract usually respond to general eliminative measures although occasional cases require ureteral catheterization and pelvic lavage. In cases losing considerable blood either during operation or following it, blood transfusion is of great value and insures a smoother and shorter convalescence.

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THE PHYSICIAN'S ROLE IN THE AMERICAN'S RIGHT TO LIFE

An Address Delivered Before the Marshall County Medical Society, Nov. 13, 1923

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I wish, first, to acknowledge my indebtedness to your secretary for the invitation to meet with you today and also to express my appreciation of the courtesy you have shown me by your presence. I have enjoyed the acquaintance of several of Marshall County's physicians for a number of years and have admired the zeal and the enthusiasm they have always shown in the meetings of our State Association

for the upbuilding of the profession in the state. I have often heard of the good work you are doing in your County Society and I come to you this afternoon more as a visitor and co-worker in West Virginia, to get better acquainted with your membership and to obtain for myself some of the professional spirit so manifest in your organization.

I shall digress a little from the usual custom of medical men when addressing a scientific body, on an occasion like this, and speak to you on questions of larger import and of broader application, "The Physician's Role in the American's Right to Life." The medical profession consists of men and women who have come up from the various walks of life and fields of endeavor, and are, first of all, citizens of the community. To be a citizen of such a county, of such a state, and of such a nation, is to possess the most honorable and noble of titles; and it is in the sphere of citizen that I shall speak to you and apply the subject matter of my address. I sometimes feel that as physicians and surgeons we are too fully occupied with the practice of our profession along the usual lines that claim our attention, viz; caring for the sick and distressed in mind and body and lose sight of or neglect the greater work which we by nature, training and experience are best prepared to do of all citizens and that is to lead in the civic life of the community.

But some may say, "Are we not doing a great and noble work when we apply ourselves diligently and faithfully to the regular duties of treating the sick?" It is true that he who heals the sick, making the blind to see, the lame to walk, and restores the diseased to health, does nobly and none can do better; still, he is not yet doing the most and the best his talents and his peculiar abilities may permit.

Stephenson has said, "There are men and classes of men who are above the common herd; the sailor and the shepherd; the artist rarely; rarelier the clergyman; the physician almost as a rule. He is the flower of our civilization, and when the stage of man is done with and only to be marveled at in history, he will be thought to have shared as little as any in the defects of the period and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by an hundred secrets; tact, tried in a thousand embarrassments and what are more important, Herculean cheerfulness and courage, so that he brings air and cheer into the sick room and often enough, though not as often as he wishes, brings healing."

No man has gone far enough in life to feel its burdens in the heat of the day, who has stood at the altar of his marriage, looked into the cradle of his children, and laid away his dead in precious and hollowed graves, but that is often brought to stand still in the midst of this hurly-burly, which we call the world, to ask himself the question, what is my work, what are my duties, what is the problem—the function of human life? These are the questions that have agitated the minds of the wise and best throughout all ages.

Solomon considered them long and at the end of his wisdom and his learning, his conclusion was

"Vanity of vanities, all is vanity." Job, the patient man, dwelt upon them in agony and distress until he was forced to bring forth one of the most pathetic cries that ever fell from human lips—"Cursed be the day wherein I was born." So, if these daily problems, these duties of man toward man, these obligations in human life, so taxed the wisdom of Solomon and the patience of Job, bringing that wisdom and that patience down to despair, they are questions capable of various interpretations and in the wisdom of ordinary man, cannot all be solved. It has been said by the great dramatist who was noted for his accurate portrayal of the human heart and for his philosophic interpretation of the motives of human conduct, "that the evil men do lives after them and the good is often interred with their bones." But, the truth of a higher and more philosophic sentiment comes echoing down to us, in the song and in the story of all the tribes of men, "that the memory of the just is blest, the names of the wicked shall rot; and, that of the good men do, time the impression stronger makes as streams their channels deeper wear."

It is however, usually, not till after death has lent its solemn sanction to a completed life and time has confirmed the value of thoughts and deeds that man's wisdom and usefulness are rightly appreciated. No man takes in the range and the altitude of a mountain when surrounded by nearby jutting prominences and peaks. And so it is that those great characters that awe and inspire us along the granite ranges of history, and who look down upon us today from their Alpine heights, are all the more conspicuous because of the distance from which we contemplate them.

You will remember in the ascent of the Mount, Dante, after a long and difficult climb, finally reached a high terrace encircling a hill; weary, he sat down facing the east, and calling to his conductor, said, "All men are delighted to look back." We, as a profession, are today standing on a high terrace of achievement and what concerns us most is whether we are pleased and inclined to look to the east, content with our past and present achievements, or, whether, we shall face the Golden West and try to anticipate the prospects in the future. It is natural for man, as the years go by, to reflect on the past, especially on the experiences of his own life, and it would be but natural that the medical profession should look back on the great galaxy of men from Aesculapius, Hippocrates, Galen, Parre, Harvey, Jenner, Lister, Koch, Pasteur, and others all the way down to the great lights of the present day, with a feeling of profound satisfaction.

Indeed the history of the past as refers to medicine and surgery is one to fill us with pride; but the past is gone and the present is with us but a moment. There is nothing in the past that really concerns us except as it affords us a secure foothold and a secure rock upon which to stand and pause for a broader outlook on the professional vista, that we may get inspiration to climb higher and to explore the yet limitless expanses in the great mountain of scientific knowledge. So it is the Golden West, the yet unknown and undeveloped fields of the future

that beckon us onward and not the fields of past endeavor.

A little while ago, I stood on the Old Brig, and looked out on the Banks and Braes o' Bonnie Doon, out upon the field wherein the Scotch poet, on that cold, bleak, November day, turned with his plow share the mouse's nest, which after he bemoaned the fact that "man's dominion had broken nature's social union," called forth from him those beautiful lines, the last of which were, "Still thou art blest compar'd wi' me." The present only touches thee; but Och! I backward cast my e'e on prospects drear! An' forward though I canna see, I guess and fear." Burns' fears are not the fears of our profession as to the future of medicine and surgery and the part they will play in the coming generation's right to life. The splendid record of achievement, shown by the medical profession during all the years through which it has passed, reassures us and we can anticipate the prospects of the future in perfect serenity and composure.

Our fathers declared that the Creator endows us with an inalienable right to life, and in order to secure it, governments are established among men. As a result of this come our laws against murder and lynchings, life saving stations, regulation of traffic and crossings, provisions for health departments, statutes controlling food and drugs, sanitation and water supply, and many other provisions to safeguard the lives and the health of the American people.

In the public schools of our country must first be taught and interpreted the obligations of the citizen in securing the American's right to life.

The study of dead languages may be essential to a thorough education; the knowledge of live languages is best; the pursuit of science is essential; moral and religious teaching is most necessary; music, poetry and art must be taught to fill out a well-rounded life; a citizen must be prepared to make a living or he will starve; all of these and many more may be learned as part of the life duty, but, the teaching of preventive medicine and of the preservation of health and of life, is of far greater importance.

The problems of street risks, fires, weapons, burns, scalds, electricity, falls, railway accidents, drowning, mishaps at pla,y bleeding, catching cold, infections, contagions, personal care of the body, fresh air, good food, the sex, and many other problems are most important subjects to be discussed in the education of our youth.

The teaching of accident prevention should take its place along with reading, grammar and arithmetic. From safety to health is a short step and by the help of the medical profession the teachers in our public schools should be required to keep hygiene as a school subject alive. Our children should be taught what good milk means, why flies are dangerous, how the engine of the body requires good fuel to properly propel it, as well as the proper disposal of the ashes. The physical examination of all children, and expertly supervised activities of every boy and girl must be obtained. The education of the teachers to a better understanding of sex problems is one of the most essential and far-reaching questions that concerns

American life. Schooling is primarily intended to perpetuate life, liberty and the pursuit of happiness. If teachers are paid to run a school, to teach life, why should they not teach it? Everyone will admit the general proposition that the school is to fit one for life. What does life depend on more, muscle or mathematics? Of what use is a headful of knowledge if the body is too weak to carry it? Physical education must be made compulsory in all schools. The prime importance of our schools is to prepare citizens to recognize the importance of living the full and perfect life.

Lincoln said that public education is the most important concern of the American people, and one of the greatest duties that confronts the medical profession today is to give the advice and the knowledge which is theirs more than any other citizens of our republic, that those who tomorrow will be the nation may have life and life more abundantly. When we really consider the function of a government, we will find that its most vital subjects have to do with the things more familiar to the physician than to any other citizen of the community.

People usually recognize the lawyer as the natural statesman and that only he is fit to make our laws and to execute them. That this is true may be shown in the fact that nine tenths of the present law making bodies of our national government are composed of lawyers.

The doctor, as a rule, is better qualified to know the needs of the human family than the lawyer, the business man or even the clergyman. The doctor is brought into contact with every class of people, into close relationship with every family, he goes into the most sacred precincts of the home, and he knows more of the needs of every man, of his food, his clothes, his fuel, the condition of his every day life, than does any other member of society; and is, therefore, most able to judge what is needed to give to every man his rights to life. The physician is able to get to the bottom of the great social problems that concern the nation. The physician has the opportunity of human contact to such an extent that it touches his heart and makes him an advocate of better laws for the relief of the distressed. He sees more of human suffering than any other individual, and knows the inequality between those who are living in the crowded sections of the city and those who live on the avenues. By having this inequality constantly brought before him, his soul is stirred to the necessity of social justice. The doctor thinks naturally in terms of human beings, whom he knows better than does any other individual. The physician should, therefore, of all men, be interested in politics, for once let his influence be felt in the making of constructive and helpful laws, his place in the legislative halls of the nation will be the rule rather than the exception.

When civilization began to emerge out of darkness and advance from one man power, a load was hung on a pole and two men carried the load. Then some one cut the butts from trees and made wheels upon which the load was drawn. From this beginning was evolved the cart, the wagon and the coach. When finally steam was applied to locomotion, came the steam boat and the railroad train, to be

followed in rapid succession by other motive powers such as the electric car, the automobile and the aeroplane.

As transportation has been revolutionized in such startling advances, medicine and surgery, along with every other department of human activity have kept their pace, and more, till today they stand as the most advanced, the most progressive of the sciences. However, as we stand on our high terrace of scientific discovery and advancement, and look toward the Golden West, we can get a vision of the fast approaching day when men and women will not be so much concerned about the curing of disease as in the prevention of disease. This, then, will be more the function of the physician of the future; not how can he cure, but how can he prevent disease.

Aside from the physician's role in the American's right to life, will come in rapid succession, improvement in the things that concerns the physician's personal welfare. The physician of the future will not be regarded by his fellow man as the poorest financier, the poorest collector in the community, nor will he be such a veritable slave to his profession. The public must be taught to understand that the physician's family are equally deserving of the right to life, liberty and the pursuit of happiness as are other members of society who heretofore have been claiming the physician's time at the expense of his own family. People must be taught that the doctor should be paid for his services as promptly and as faithfully as are the butcher, the baker, the grocer and the landlord. The physician of the past has been too neglectful of what is rightly his and his family's and the public is too much inclined to regard the doctor's bill as the last bill to pay if paid at all.

The remedy for this injustice is in our own hands. Bills for our services should be sent promptly each month and the public brought to understand that prompt payment is expected. The physician is not driving a trade or making a deal but doing far better and what is more precious, giving to his patients and to the public in general, health, happiness and the right to life, and should be paid, not last, but first. Another thing I would touch upon before leaving this subject, and that is the physician is usually regarded as the chiefest target for the gold brick promoter, the most easy mark of the confidence man to fleece from him what little he has saved, by leading him to invest in wild and unusual business schemes. This is nothing short of a crime; yet one can easily understand why it is so, for the physician's life is so hard, his earning capacity is only so great as his own ability to work and this of short duration, that in his eagerness to have something laid by for old age when from physical inability he can no longer practice his profession, he too easily yields to the influence of designing persons who take advantage of his extremity and lead him to unprofitable ventures. What of the medical society? The American's right to life is better safeguarded by the benefits coming to a community in the organized medical society. The county or city medical society protects the physician in his professional duties, stimulates his scientific aspirations and

greatly increases his influence for good in the community.

When the public realizes that the medical men are organized for the advancement of that which increases their right to happiness and life, they will hold the physician in greater esteem and learn to lean upon the medical society in the securing of better laws and civic improvements. No man practicing the profession of medicine or surgery can afford to be out of his county society. In conclusion let me say that ours is a great profession. We are engaged in the noblest of callings, though fraught with sacrifices, vicissitudes and disappointments.

We feel at times that we are so hedged about, that to uphold the honor, the dignity and nobility of our calling, is not worth the effort; and more, that it does seem, at times, that those to whom we give our very best do not properly appreciate our endeavors in giving them the right to life.

Yonder at Washington, under the dome of our great capitol, in our American Pantheon, stand the images of those who have shed undying lustre on their country's name and it is well that their bright virtues are perpetuated in enduring marble where though mute and motionless they shall stand for ages to eloquently proclaim to the youth of America the wonderful possibilities that lie before them. While from the galaxy of those great men the images of American physicians are conspicuously absent, still we should take heart, for in spite of our doubts and fears, we are, nevertheless, building monuments up and down these valleys in every hamlet and town; monuments more lasting than stone, more enduring than marble, for we build in the grateful hearts of those to whose sick we have ministered and for whose children we have cared. I feel that I can not better close my remarks to you this afternoon than by using the beautiful poem by Markham written from the story of a servant of God and a follower of the lowly Nazarene, weary in well doing and whom the Master promised on a certain day he should visit and give a blessing.

THE PROMISED GUEST

While the cobbler mused there passed his pane
A beggar drenched with the driven rain;
He called him in from the rocky street
And gave him shoes for his bruised feet.
The begger went and there came a crone
Her face with sorrows and wrinkles sown;
A bundle of faggots bowed her back
And she was spent with the wreck and rack;
He gave her his loaf and lifted her load
And she went her way on her weary road.
Then to his door came a little child—
Lost and afraid in this world so wild—
This cold dark world, lifting it up,
He gave it the milk from his waiting cup,
And led it home to its mother's arms
Out of the reach of the world's alarms.
The sun went down in the Golden West
And with it the hope of the promised guest;
Then Conrad sighed as the day turned gray,
And said, "Master why does Thy feet delay,
Hast thou forgotten that this is the day?"
Then in the silence a voice was heard,
'"Life up your heart, I have kept my word,
Three times I came to your friendly door,
Three times my shadow crossed your floor;
I was the begger with bruised feet,
I was the woman you gave to eat,
I was the lonely child in the street."

VERTIGO

SYNONYM: DIZZINESS

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Definition: Vertigo has been defined as "A subjective sensation of disturbed relationship of one's own body to surrounding objects in space." An incomplete definition is that it is "motion sensing not in accord with fact." Panse's definition probably best conveys to our minds the composite word picture of vertigo. He describes it as "That feeling of confusion which results from contradictory perceptions of our relative position or motion in space."

Vertigo is essentially a subjective phenomenon—a cerebral disturbance resulting from impulses carried from the kinetic-static labyrinth to the cerebral cortex. The term itself does not refer to the reflexes which may accompany dizziness, such as pallor, clammy skin, vomiting, circulatory failure, nausea and diarrhea nor should the severity of the reflex manifestations be taken as an indication of the severity of the vertigo. A patient may exhibit violent reflex symptoms from a relatively mild disturbance of the vertigo producing mechanism yet become inured to the reflexes accompanying a vertigo producing lesion of grave consequences, especially if it be a slow insidious affair or one which has become chronic long since.

Given a case of vertigo, no physician should be satisfied with such diagnosis as "bilious attack," "stomach upset," "nervous indigestion," "kidney trouble," "circulatory disturbance" or "idiopathic vertigo" or any other generalization which of itself means little or nothing. The viscera can no more produce vertigo of themselves than they can produce illusions of sight, hallucinations of sound or perversions of smell. Sensory pathways are involved, centripetal stimuli are created and conscious perceptions are made in a definite part of the brain in the one instance just as much as in the others.

Anatomy: Three sets of organs are responsible for the creation of vertigo, viz., eyes, ears, and the kinesthetic sense organs, comprising the deep muscles, joints, sensory nerve endings all over the body, and viscera probably. With the eyes are included the intrinsic and extrinsic muscles. Ears refers to the equilibrium or static and motion sensing or dynamic apparatus of the non-acoustic labyrinth, including the three semi-circular canals, the utricle, saccule and the eighth cranial or auditory nerve. The intracranial pathways need only to be mentioned for the vertigo pathways have not been isolated nor identified sufficiently to enable us to be dogmatic. The cortical centre for the reception of vestibular impulses is said by Mills to be in the posterior part of the first and second temporal convolutions, adjacent to the cortical areas for hearings. The bony labyrinth is within the petrous portion of the temporal bone. It consists of a central chamber called the vestibule from which there extends anteriorly a coiled tube or spiral of two and one-half turns known as the cochlea while posteriorly there extend three tubes known as the semi-circular canals. Within the bony labyrinth there is a membraneous labyrinth almost a cast of the bony structure but with the central

vestibular portion further divided into two sacs known as the utricle and the saccule. The membraneous structure occupies about one third the space within the bony walls, the remaining two thirds being taken up by fibrous bands and cerebro-spinal fluid known as perilymph. This perilymph communicates with the rest of the cerebro-spinal fluid through the ductus perilymphaticus which opens in the subarachnoid space. The membraneous labyrinth floats, as it were, in the perilymph. Inside the membraneous labyrinth we find a fluid known as endolymph. This fluid is secreted here by the neuroepithelium and has no means of escape. The utricle, saccule and three semi-circular canals intercommunicate and it is the circulation of this fluid which carries wave impulses to the hair cell end organs to be mentioned shortly.

Histology: Only so much as pertains to a better understanding of the production of vertigo will be called to your attention. In your study of the histology of the ear, you learned that sound waves ultimately reached the sense organ of the cochlea, a structure known as Corti's Organ. The histologic receptors of these stimuli are hair cells and upon these hair cells there lies a gelatinous substance known as the tectorial membrane. In each of the three semi-circular canals there is a structure comparable to this organ of corti, known as the crista and containing the same sort of hair cells on which there is a similar gelatinous membrane called the cupola. In the utricle, into which the semi-circular canals empty, and in the saccule, we find again similar structures, here known as the macula utriculi and macula sacculi respectively, with the same sort of hair cells and similar gelatinous membranes, but now containing calcareous bodies known as otoliths. These otoliths assume differing relations to the underlying hair cells and by their pressure or absence of pressure which occurs when the body is changed in position, convey to the brain the message which indicates our position in space or motion. The macula of the saccule is in the frontal plane and detects linear motion. That of the utricle is in the sagittal plane and detects antero-posterior motion. The two together probably detect up and down motion.

The functions of the non-acoustic labyrinth, so far as we know, are static and kinetic. Static, to maintain posture; kinetic to appreciate and analyze motion. Two other functions have been attributed to this non-acoustic labyrinth by Bonnier, viz., that of Barasthesia and Seisesthesia. Barasthesia is said to be the ability to appreciate the amount of external pressure, liquid or air. Seisesthesia is the detection of variations of the pressure from external media—as I take it, the duration of the pressure.

A normal individual does not need to use his eyes, ears, and kinesthetic sense organs all together to maintain certain positions, to execute the more common motions nor to appreciate them. He can, for example, close his eyes and tell readily his station by the amount of pressure exerted upon the soles of his feet, his gluteal muscles, his knees or his back according to the position in which he is. His sensory nerves, his deep muscles and his joints by long experience and training inform his brain of what is go-

ing on with regard to his position and motion, providing of course, that the stimuli are perceptible by these structures. As a consequence if vertigo is produced by a sudden falsification of any one of these three structures (eyes, ears or muscle-joint sense), the other two endeavor to compensate, after a varying period of time and before we realize it, the patient is able to perform his usual functions without any discomfort or complaint and the credit may be given to the treatment prescribed. Careful tests will not fail to elicit the defect even though nature has covered it up and the patient has ceased to complain.

The three semi-circular canals are placed at right angles to each other and correspond to our three dimensions, height, breadth and depth. The horizontal or external canal is placed in the horizontal plane; the posterior one is a vertical canal and lies in a plane midway between the frontal and sagittal, its outermost portion being placed posteriorily and the innermost being forward and inward. If the plane of the posterior canal be projected, the lines would unite in the region of the sella turcica. The superior canal is also a vertical one but its outermost portion is anterior. Its plane is likewise midway between the frontal and sagittal and may be likened to that of the hand in the saluting position. If the planes of the two superior canals be projected, the lines would meet at the posterior margin of the foramen magnum. The planes of the various canals are not figured with the head erect but when the head is inclined forward thirty degrees. Thus if we incline our heads forward thirty degrees, the horizontal canals will be parallel with the floor and the superior and posterior canals will both be at right angles to the floor. The fundamental principle of the physiology of the labyrinth is that positions and motions of the body cause the endolymph to circulate and carry wave impulses to the hair cell end organs in the three canals and the connecting utricle and saccule.

If the body moves forward, the otoliths above the macula of the utricle lag behind while motion laterally causes a similar lagging of the otoliths above the macula of the saccule. This lagging is best understood by comparing the otoliths to the people standing in a train or trolley which starts abruptly and unexpectedly. They all incline toward the rear of the car, providing that they retain their balance. By previous experience these people know that to be pitched backward in a moving vehicle means that it has started forward. In the same way, the hair cells have learned to associate an inclination in one direction with body motion in the reverse direction. The question might arise at this point, what then, is the interpretation when the endolymph circulates at a speed which causes no lagging behind of the hair cells? This can best be answered by citing the feelings of a normal patient rotated experimentally in a Barany chair. If the chair be rotated a certain number of times, the patient can at first tell accurately in which direction he is being turned. When after a sufficient number of turns the endolymph is circulating at the same speed as the body, there is no lagging and the patient feels no sense of rotation and believes that he is sitting quietly in a still chair.

If the chair be stopped suddenly now, the endolymph goes speeding merrily on and now while the patient is actually sitting still in a stationary chair, he has the sensation of continued rotation for several seconds. When the endolymph was traveling at the same rate of speed as the body, the relation between the endolymph and the hair cells was identically the same as when the body is normally stationary. When the chair was stopped suddenly, he interpreted this as he always does, that movement of endolymph in one direction means body motion in the opposite direction.

Circulation of endolymph has been mentioned, yet the containers of the circulating fluid are semicircles and not complete arcs. Each of these canals has one dilated end known as the macula, in which we told you that the hair cell end-organs were located. The ampulla is not sealed but is an open end and empties into the utricle. The other end of the horizontal canal likewise opens into the utricle. The second ends of the two verticle canals are united into one common cross which similarly empties into the utricle. Thus one half the cycle is in the semi-circular canals and the second half is completed in the utricle.

One may wonder, and very properly so, why the acoustic and non-acoustic labyrinths are united in the internal ear and are so intimately related yet have such diverse functions. Surely the cochlea and the static-kinetic vestibular apparatus have nothing in common, is our first impression. In the evolution of life as we now know it, the auditory apparatus which governs hearing was one of the last of the special senses to be added to our structure. The equilibratory organs, which we are but beginning to understand during the past few years, may seem new to us in terms of knowledge, but they certainly are not recent arrivals in the animal anatomy. Primitive non-vertebrates as low in the scale of life as the jelly fish are equipped with motion and position sensing organs, but there is no semblance of a cochlea or other hearing apparatus. Birds have highly developed semi-circular canals but the acoustic organs are but rudimentary. Evidently the fish needs no hearing to warn it of changes affecting its equilibrium or motion or else it would have developed hearing long since. Birds naturally depend upon vision almost exclusively hence have no reason to develop hearing to a high degree. Not so with the higher vertebrates, however, which have to deal with conditions foreign to the water habitating fish and the air riding birds. The collection of sound is but an added labyrinth measure of protection to our safety and to the better functioning of the non-accoustic. When you are crossing a street on foot and an automobile horn suddenly sounds in your ears, do you wait to look with your eyes or to feel it with your muscle joint sense or do you automatically jump and hurry out of danger? In earlier civilization, beasts of prey served as the incentive to keen hearing for protective purposes. The next logical development was that of speech which probably first consisted of repetition of familiar sounds. And from speech developed the higher mental and psychic faculties with which we are endowed and which serves to distinguish man from the other mammalia. But not only is

hearing one of our latest acquisitions, it is also one of our most highly specialized senses, even more highly specialized than vision. All the special senses, excepting speech and hearing have a bilateral cortical representation. You all are familiar with the fact that injury to the left horizontal gyrus of the tempero sphenoidal lobe does cause word deafness in certain cases while the same damage to the right gyrus produces no deafness. Hearing as we understand it now is more than mere auditory—there is more than the reception of sound. There is required a will or an effort or whatever you care to call it, but some sort of a motor impulse before we can hear intelligently. If we do not exert this effort, the speaker's voice drifts farther and farther away and his words become mere sounds. There must be, in addition to these, an ability to interpret what we hear, for if we listen most attentively to another speaking a language foreign to us, our sensorium records nothing but just so many sounds. The relation of all this to vertigo is important. The more highly specialized a structure is, the more liable to damage it is and the less repairable. The more primitive the structure, the more it can withstand in the way of attack and the more provisions has nature made in the way of compensation. A relatively small impairment in hearing remains permanently or grows worse more frequently than it improves through any efforts on the part of nature. Yet the manifestly severe symptoms attending early the sudden destruction of one of the semi-circular canals or of the labyrinth is soon compensated for and many apparently sound and normally functioning individuals are about us with no evidence of their impairment unless it be looked for with instruments of precision and careful analytical examination. The planes of rotational vertigo correspond to the planes of the three semi-circular canals; horizontal vertigo is torsional — a sensation of turning from right to left or left to right. Horizontal plane vertigo is the least unpleasant of the three, whether produced experimentally or pathologically. Frontal plane vertigo is the sensation that one is falling to the right or the left while sagittal plane vertigo makes one feel that he is falling forward or backward. The explanations of Barany best help us to understand the various types of rotational vertigo.

If one is on a ship at sea, the movement of the bow of the ship to one or the other side of a straight course is productive of very little, if any, discomfort. This movement is appreciated by the horizontal canals. If the ship pitches fore and aft, alternate rising and dipping of the bow and stern, and the subject is standing facing forward, the vertical canals are affected in the sagittal plane and an uncomfortable feeling results. If now he lies down with his body athwart ships at right angles to the long axis of the ship, the pitching affects the horizontal canals and much of the unpleasantness is removed. The rolling of the ship from side to side is productive of the most severe seasickness, for with the subject facing forward in the erect position, the vertical canals are affected in the frontal plane and a most unpleasant feeling results. If now he lies down with his body parallel to the length of the

ship, the horizontal canals take up the burden and improvement results. The old salts at sea know nothing of the physiology of the semi-circular canals but they have learned empirically what methods to pursue to rid themselves of seasickness. It is counter stimulation and compensation combined and I can personally vouch for the effectiveness of the procedure. They advised me to go up on the bridge where the full force of the wind could be felt and to walk rapidly back and forth until the feeling of vertigo and nausea had been overcome. The brunt of the burden had been transferred from the frontal to the less unpleasant sagittal plane while the rapid walking tended to create a circulation of the endolymph at odds with that which the rolling of the ship was trying so strenuously to produce. This same procedure was followed a sufficient number of times during three years active service at sea to convince me beyond the remotest shadow of a doubt that it was effective.

Etiology: The causes of vertigo as seen in everyday life can be enumerated under three headings, that of the three symptoms capable of producing vertigo, viz., Visual apparatus, non-acoustic labyrinth and the internal ear and the kinesthetic sense organs (the deep muscles, the joints, the viscera and the sensory nerve endings all over the body). Before enumerating ocular causes, an understanding of the law of light projection will serve for a clearer conception of the modus operandi of the pathological causes. You all know that all our visual impressions are received on the retina as a reversed image of the object viewed. Objects seen to the temporal side of the right eye are recorded on the nasal side of the retina of that eye. The more temporal the object the more nasal the image. Thus we have learned to interpret an image on the extreme nasal side of our retina as an object to the extreme temporal side of that same eye in the outside world. If we gaze at an object straight ahead and our eye is involuntarily moved to the temporal side, the image is accordingly moved automatically to the nasal side of the retina. Under ordinary circumstances, when an image is on this particular spot of the nasal retina, it is referred to the right of the point straight ahead of the eye. Now the brain is informed that there is an object to the right of the centre whereas actually the object has not moved at all—is still straight ahead. Its image on the retina has been moved involuntarily and the visual pathway has conducted the stimulus to the brain properly, nevertheless the object is not where it seems and the contradictory perception causes or becomes vertigo. You can try this experimentally upon yourselves. Look at some distant object with one eye and move the eye forcibly downward with the finger. The object viewed seems to move upward and a sensation of vertigo is at once produced momentarily.

Ocular Causes: Paresis of the external ocular muscles is probably the most noted example not a complete loss of function as in paralysis but a paresis wherein efforts at restitution are made from time to time, also compensatory efforts. When vertigo is due to a paralyzed muscle, the patient soon learns to suppress the false image of the squint-

ing eye and uses but the one eye for effective vision.

Improperly adjusted lenses, especially of the bifocal type, by making the one eye look through the near segment while the other eye is looking through the distant correction, are a not infrequent source of vertigo. Incorrect lenses, either hyperopic or myopic, especially if but one eye is incorrectly glassed, can readily cause vertigo. If the lens is too hyperopic, the vision is blurred and leads the patient to interpret the object viewed as being at a greater distance than it actually is, while the magnification produced gives the sensation of nearness of the object. The conflicting sensations produce vertigo. Lenses so adjusted that prismatic effects are produced or cylinders which cause tilting or blurring, have the same effect. Paralysis of accommodation by the use of drugs or from a central lesion can cause vertigo if suddenly produced. Multiple pupils, unequal vision of the two eyes, lesions of the optic nerve, and any intracranial lesions which cause interference with the conduction of vision stimuli may cause vertigo.

Aural vertigo may be caused by pathological conditions of the non-acoustic labyrinth, vestibular portion of the auditory nerve and intracranial nuclei or tracts to the cerebrum or cerebellum. In the labyrinth we find irritative or destructive lesions, suppuration, toxemia, etc. Eighth nerve neuritis is frequently seen and may be due to a host of conditions. Important among these are drugs, such as quinine, the salicylates, including aspirin, lead, arsenic, nicotin and alcohol. Syphilis of the eighth nerve is relatively common. It is usually bilateral and is one of the earliest manifestations of the late secondary or early tertiary stage. From 70 to 80% of bilateral eighth nerve neuritis is probably syphilitic in origin. The chief cause of unilateral eighth nerve neuritis is focal infection, from apical abscesses (which are said to be responsible for at least half the cases seen in this country) infected tonsils, sinusitis, and gastro-intestinal conditions. The acute infectious fevers are responsible for many cases of neuritis of the auditory nerve—scarlet fever, influenza and typhoid ranking in the order named. The intracranial lesions which can produce vertigo include practically every condition seen, the more frequent of these being tempero-sphenoidal abscess, cerebello-pontine angle tumors, disseminated sclerosis, cerebellar abscess and plastic meningitis. Any condition within the cranium that can cause an increase in the pressure can cause vertigo.

History taking is of as much importance in this condition as in any other seen by the practicing physician. The duration of the vertigo and the progressive severity, the rapidity of onset and its description, recent change of lenses, ocular disease or injury, presence or absence of diplopia, history of ear trouble, recent or remote, deafness, tinnitus, the taking of drugs, debilitating illnesses, venereal history, dental history or personal habits, concommitant symptoms, and what the patient may have discovered for himself as a method of obtaining relief—any one of these or of a score others not mentioned may at once start the examiner upon the right track.

To discuss the diagnosis in detail would take an evening of itself and

would be of little interest to you unless you planned to enter into the subject more deeply. Certain salient features should be known by every practicing physician and these wlil be enumerated without much commert. Nystagmus is of two varieties, ocular and aural. The ocular type is undulatory or oscillatory, both to and fro movements of the eyes being of equal rapidity. It is partially under the control of the patient inasmuch as by a strong effort of the will the patient can cause the eyes to stand still for a moment or two in the same manner that a patient with paralysis agitans can cease the pill rolling movements of the fingers for a short time. Aural nystagmus is rhythmic in type, the eyes being pulled to one side slowly and recoiling more rapidly to the opposite side. It is strictly involuntary. The slow movement is labyrinthian in origin, the rapid movement or component is cerebral. If the patient be anasthetized so that the conscious element is absent, there will be a conjugate deviation of the eyes to one side, that is, the gaze will be directly to one side and the eyes will remain motionless. Aural vertigo is seldom if ever seen without the accompanying nystagmus. Ocular vertigo is seldom accompanied by nystagmus. If nystagmus is present, it is the work of but a moment to determine whether it is due to the eyes or the ears. Ocular vertigo is relieved at once by closing the eyes. Aural vertigo is not ameliorated by closing the eyes while the vertigo due to muscle-joint pathology is aggravated by closing the eyes, as in tabes. Aural vertigo is aggravated by movements of the head, whether the eyes be open or closed. Relief is obtained when the patient assumes a position of rest, especially the recumbent posture. Ocular vertigo is not influenced by position or body movements if the eyes are closed. Motion of the open eye when the condition is due to paretic extrinsic muscles may cause aggravation upon looking toward the paretic muscle. In vertigo due to eye disturbances, the sensation of vertigo is referred to external objects—they seem too near or too distant, inclined to one side or the other, the floor may seem to be coming up to meet him or to be receding from him. Vertigo due to labyrinthian disturbances is rotary —with the eyes open, external objects seem to be revolving in one of the three planes mentioned while with the eyes closed, the patient himself seems to be going around in one of the three planes.

In the vertigo due to kinesthetic disturbances (muscle-joint sense) objects are seen as they should be, but the patient has a subjective sensation as though he himself were out of plumb with the external world—he feels tilted forward, backward, to one side or the other. In making a movement, he thinks that he has overdone it or underdone it.

The purely objective testing of labyrinthian vertigo is accomplished after observing the spontaneous phenomena, by the rotational tests in the Barany chair, by the caloric or ear douching tests, using water at 68 or 118, and by the galvanic current to the ears. The rotational tests stimulate the two ears at the same time and the results are both quantitative and qualitative. The caloric test gives qualitative results from one ear alone. The galvan-

ism tests one ear only and its results are both quantitative and qualitative. The hearing is first tested in all cases for conversational speech and whispered voice. Then tuning fork tests are made, using a stop watch and a standardized tuning fork, one whose duration of vibration by bone and air conduction for a normal person is known. The cochlear branch of the auditory nerve is generally affected before the vestibular branch, hence the diagnosis or exclusion of deafness is of importance. First we try to ascertain whether the static-kinetic labyrinth is intact or damaged. Our next endeavor is to learn whether the lesion is central or peripheral and then we try to localize it. This branch of medicine is yet in its infancy and we are continually learning something new. Some of the early deductions were more theoretical than actual and have consequently fallen by the wayside. Some are in dispute and not universally accepted while others have been proven and afford us a solid foundation upon which to build. Considerable information has come from cases followed to operation or autopsy and it is this manner that most of our future knowledge will come.

It is hoped that you have not taken from this paper that vertigo can only be caused by derangement of the internal ear itself. Vertigo is distinctly a manifestation of certain cardio-vascular, gastro - intestinal respiratory and other conditions, but the point is that these conditions cause vertigo not of themselves but by action upon the internal ears. The imbibing of alcoholic beverages cannot be said to be a cause of vertigo per se—it is only when the alcohol enters the blood stream and reaches the non-acoustic labyrinth that vertigo is experienced. The dulling of the sensorium, the inco-ordination of the muscles and the other manifestations by the various systems do not cause vertigo —it is the labyrinth. So too, it is in cases of vertigo due to disorders of the viscera.

If this paper accomplishes nothing more than to stimulate increased interest in the causation of vertigo cases seen and to make you view them in a more analytical light it will have accomplished all that is desired.

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ACUTE HAEMORRHAGIC PANCREATITIS

By T. E. VASS, M. D., Bluefield, W. Va.

Read before Mercer County Medical Society, November 23, 1923.

Some of you present may wonder why a subject which is so uncommon was selected and particularly one which there are so few proven facts regarding the condition known

but we have been rather fortunate or unfortunate in being able to see three cases of Acute Haemorrhagic Pancreatitis within a year.

One of these cases was not operated upon and died within twenty-four hours, the second was operated upon and lived thirty-six hours after operation, the third was operated upon March 6, 1923, and is still living at the present date. The last case was the worst of the two operated upon from a gross pathological standpoint.

Acute Haemorrhagic Pancreatitis is not differentiated clinically from other forms of acute pancreatitis, the exact nature of the lesion can only be determined at operation or autopsy. Deaver says, "It is, perhaps, no exaggeration to say that the condition is more often unrecognized than it is diagnosed before operation." There are a number of reasons why this is so. In the first place it is comparatively infrequent but nevertheless more frequent than is generally supposed and, as in other abdominal conditions, there is no one sign or symptom that can be said to be pathognomic of the disorder; and most often the desperate condition of the patient makes operation imperative without the formality of a diagnosis. Another fact that interferes with a positive diagnosis is that acute pancreatitis is so frequently associated with other severe abdominal lesions, such as cholecystiitis, perforating gastric or duodenal ulcer, appendicitis, etc. In fact it is often mistaken for one or the other of these conditions, probably the majority of these cases come to operation with a diagnosis of acute intestinal obstruction.

Compton and Heber state, "That in the analysis of nine hundred and fifty cases of acute pancreatitis reported in the British Medical Journals from 1910 to 1920, the condition of the pancreas is variously described as simple swelling, acute inflammation with or without cyst formation, haemorrhagic pancreatitis, abscess or more or less sloughing of the gland. Of six cases definitely described as acute haemorrhagic pancreatitis, three died and three recovered.

"Douglas notes the possibility of spontaneous recovery from acute pancreatitis. In one of his cases which died following operation for acute pancreatitis, the pancreas showed beside haemorrhage and necrosis, several areas of fibrosis surrounding masses of creamy material which evidently was the result of a previous attack that had ended in recovery. The clinical history showed that this attack had occurred a year before and was diagnosed as gall-stones. In another case, a patient recovering from operation for urethral stricture developed a large mass in the area of the pancreas, with an elevation of temperature, a positive Cammedge reaction, and a fatty diarrhea very evidently due to a pancreatic lesion. The man refused operation but made a complete recovery.

A third case cited by Douglas shows the possibility of a severe pancreatic lesion without any chacacteristic or localizing symptoms. The patient was a woman with symptoms of salpingitis for which she was operated. During the operation fat necrosis of the omentum was noticed and incision of the pancreas showed it to be hard and indurated with haemorrhagic and

gangrenous appearing areas. The patient made a good recovery."

"Of Sweet's six cases of acute pancreatitis he describes the pancreas as haemorrhagic and gangrenous in one. The gall-bladder was inflamed and contained gall-stones. The gall-stones were removed, gall-bladder and pancreas were drained, from which the patient made a good recovery."

"Jones reports fifty-six cases of acute pancreatitis including necrosis with abscess, 'because it is impossible to separate them from haemorrhagic necrosis that has broken down.' The great majority of these cases were, however, acute haemorrhagic necrosis. He further says, that in twenty cases of acute haemorrhagic necrosis of the pancreas in which the pancreas or fatty capsule of the pancreas was drained, the mortality was fifty-five per cent."

Godart reports two cases, both of which were fatal. He notes that acute haemorrhagic pancreatitis has only been reported infrequently in French literature. He believes gall-bladder disease to be the most frequent cause of the condition.

Haugseth reports a case in which recovery followed removal of the gall-bladder with numerous stones, and drainage of the pancreas.

Rigby reports a case with pain in the lower abdomen, tenderness on palpation in the same region, nausea, vomiting, and chills. At operation the pancreas was swollen, maroon colored, and mottled on the surface. The paitent did not rally from the operation. At autopsy the pancreas showed numerous interstitial haemorrhages, fat necrosis throughout the peritoneum, and a round worm (ascaris lumbricoides) in the pancreatic duct.

McAuley reports a case in which the chief symptoms were intense epigastric pains referred to the midline just above the umbilicus, with vomiting and collapse. At operation the pancreas was found to be engorged with blood and very friable. The patient did not rally from the operation. At autopsy the whole pancreas was found to be necrotic and haemorrhagic.

The first of the three patients treated in St. Lukes Hospital was Mr. R. H., age thirty-nine. He took sick suddenly about seven o'clock in the evening with very severe pain in the epigastrium, nausea and vomiting, temperature subnormal, pulse one hundred and twenty-five, sightly cyanosed, skin cold, clammy and bathed in perspiration. The pain was so severe that half a grain of morphine sulphate gave him very little relief, his pulse gradually weakened and his shock and collapse became complete before his death at eleven o'clock of the same evening. This patient had been perfectly well except for slight indigestion and discomfort in his stomach for three or four weeks previous to his attack of pancreatitis? The patient was neither operated upon or autopsied, so our diagnosis in this case is neither proven or disproven.

The second patient, Mr. T. F., age forty-two, had had an indigestion for three or four weeks previous to the attack of pancreatitis, and had received some treatment for same from his physician. He took sick suddenly about one o'clock October 31, 1922, with severe pain in his epigastrium, which he determined indigestion following a rather

hearty meal at noon. Upon the arrival of his physician, who found him in a state of collapse, with subnormal temperature, pulse sixty-six, bathed in cold perspiration, and complaining of very severe pain in the epigastrium. The patient's stomach was emptied and given a hypodermic of morphine with very little relief. He was brought to the hospital that afternoon and given symptomatic treatment until the next morning when he was operated upon. Upon opening the abdomen small nodules of fat necrosis could be seen all over the omentum, pancreas was dark mahogany and swollen to about three times its normal size. No pathology was demonstrable outside of the pancreas. The pancreatic capsule was incised in several places and two cigarette drains were placed just beneath the pancreas and the abdomen closed. The patient lived until the next day, November 2, 1922.

The third patient, Mrs. J. T. R., took sick suddenly March 5, 1923, about one o'clock in the morning with severe pain in the upper abdomen, temperature subnormal, pulse sixty-eight. She was given half a grain of morphine with some relief for a short time. She was seen a few hours later when she showed no improvement or relief from the shock or pain. She was sent into the hospital and taken directly to the operating room. The usual small nodules of fat necrosis was observed upon opening the abdomen. There were a few adhesions between the duodenum and gall-bladder which were freed. The pancreas was bright red and swollen to three or four times its normal size. The capsule was incised in several places and three cigarette drains placed down to pancreas with closure of the abdomen. This patient had a temperature of ninety-eight to one hundred and six-tenths, and a pulse rate of eighty-five to one hundred and fifty until March 16, when it remained normal. She was discharged from the hospital March 24, 1923. At present she says she is apparently as well as ever except for occasional attacks of indigestion which do not cause her very much discomfort.

This brief resume will give you a fairly general idea of the condition when encountered. The causative factor underlying this condition is not as yet definitely settled, but may be grouped under four heads, viz: infection, traumatism, chemical or pathological physiology with probably a general combination of all of them.

Although it has been definitely settled that the ferment of the pancreas exists as a proferment or zymogen and in this state it is incapable of acting upon the tissue of the pancreas. Normally the trypsinogen exists in the pancreas in an alkaline media, but if this media is neutralized or acidified the trypsinogen is activated.

Normally it is activated by the enterokinase of the intestines, but under pathological or experimental conditions it can be activated by various chemicals, bacteria, and truamatism. As a result of this abnormal activation of the trypsinogen within the pancreas, there results a fat necrosis or digestion with damage to the blood vessel walls which result in a diapidisis or haemorrhage according to the amount of

damage to the parenchyma. At operation or autopsy it is very difficult if not impossible to determine what was the causative factor back of the hemorrhage into the pancreas.

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UNUSUAL UROLOGICAL PROBLEMS

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It has been well established that symptoms and urinary findings are often misleading in diseases of the urinary tract, and it is my desire in this paper through some case reports to bring out some points not only of interest to the Urologist, but to the physician in every branch of medicine. No longer can we be satisfied when the patient gives no symptoms referable to the urinary tract and the urinary findings are negative.

Case No. 1: White man, aged 56, married, chief complaint feeling of lassitude and weakness. Past history negative to serious illness. General health always good. Had severe strain to right side while pitching ball some thirty years ago, no after effects.

Present illness began six months ago with general weakness and feeling of lassitude. Slight headache at times. He is constipated and takes some cathartic each day. Digestion is good. Urinalysis made by his family physician showed pus in considerable quantity. No pain in sides or back, no frequency, does not get up at night to urinate.

Examination: Nutrition good, no glandular enlargement, head and chest negative. Abdomen is large and no masses can be felt. Slight tenderness on deep pressure at costo-vertebral angle, right side. Prostate moderately enlarged, secretion contains moderate amount of pus.

Urinalysis shows large quantity of pus and moderate amount of albumin.

Cystoscopy: Bladder mucosa practically normal. Urethral orifices appear clear and were catheterized. Examination of the specimens obtained thereby showed the left side to be free from infection and albumen, and the right side much pus and albumen. Smear from the right side showed bacilli-coli. The phthalein was given intravenously and no trace appeared from the right side while from the left it appeared in four minutes and the output was 45 per cent. Pyelogram showed the opaque solution infiltrating throughout the entire right kidney. The left side was normal. Diagnosis: Right pyonephrosis with compensated left kidney. Right nephrectomy done a few days later. The right kidney was three times the normal size. The parenchyma entirely destroyed and the remaining sac full of pus.

This case is of unusual interest because of the absence of any symptoms referable to the urinary tract. This process must have been going on for some time and was giving evidence of general toxemia, yet at no time was discomfort in the side or bladder symptoms present.

Case No. 2: Mrs. W., white, age 39, married. Chief complaint, attacks of pain in left side with fever and vomiting. Family history, father died at 52, heart trouble. Mother had four miscarriages and lost four children in infancy.

Personal history: Has always been delicate, has had no serious disease but general health has not been good. Had considerable trouble with eyes during childhood. Two children apparently in good health. Menses for past three years have been scanty and irregular. No dysmenorrhea. Three years ago patient fell across chair on right side, following which she had pain and swelling in right loin with blood in urine. Was in bed four weeks and had apparent complete recovery.

Present illness began one year ago with pain in left loin radiating to thigh, chills, fever, nausea and vomiting. Frequent burning urination during attack. With rest in bed this attack passed off. Six months a similar attack occurred which subsided in two weeks. One month later had another attack and was referred to us for diagnosis. Examination: Small rather poorly nourished woman, reflexes normal, fine stellate linear scaring about corners of mouth. Throat and teeth negative.

Abdomen: Tenderness and rigidity at left costo-vertebral angle. Kidneys not palpable.

Cystoscopy: Bladder normal capacity. Moderate congestion throughout base particularly around left ureteral orifice. Both ureters catheterized. Urine from left side showed much pus and bacilli-coli and the function was 25 per cent. No secretion could be obtained from the right side. Roentgenogram showed a large single stone in parenchyma of right kidney and four stones, one large and three small in left kidney. Pyelogram on left side showed the large stone to be lodged in the calyces, but the smaller ones in kidney substance. Blood urea nitrogen 14.8 mg. per 100 cc. of blood. Wassermann showed slight positive reaction.

Diagnosis: Bilateral renal calculi with non-functioning kidney on right side.

Patient was given pelvic lavage left side once weekly for six weeks, after which time the urine from that side showed no infection. A left nephrotomy with removal of stones was then done. Patient had uneventful convalescence, left hospital in two weeks. Two months later the function from left side was 30 per cent.

This patient undoubtedly has heriditary syphilis which she has fairly well taken care of without treatment. Although she had a non-functioning right kidney with large calculus she complained of no pain in that side. This case proved that pelvic lavage would clear up infection even in the presence of calculi. However the most important point in this case is probably that of the kidney function. Although her only functioning kidney was eliminating only 25 per cent phthalein in 30 minutes, her urea nitrogen was normal, which showed that whatever her output was, it was sufficient for her elimination, and our decision to operate the case was made on that point.

The next case, that of a male, age 64, married, occupation merchant. Chief complaint, pain in left side and frequent painful urination.

Past history: Had attack similar to present one fifteen years ago except there was no bladder symptoms. Cleared up in two weeks. General health good. No serious illness since he can remember.

Present illness: Began nine months ago with frequent painful urination night and day. This frequency has been present since, with periods of relief. Two weeks ago began to have pain in left side and noticed some blood in his urine. Has been losing weight and feeling bad generally for two months. Claims he voided every five minutes night before admission.

Examination: Nutrition poor. Apparently in pain and very weak. Temperature 100.6, pulse 100. Reflexes normal, throat negative. Teeth have been extracted. Chest negative. Abdomen: Neither kidney palpable. Marked tenderness and muscular rigidity at costovertebral angle on left side and through left loin. Prostate gland moderately enlarged but secretion contained no pus. Urine showed a large quantity of pus and blood. Cystoscopy under sacral anesthesia. Entire bladder base shows superficial ulceration. Left ureteral orifice gaping and thick pus seen exuding at intervals. Right uteral orifive appears normal. Both ureters catheterized. Specimens obtained and phthalein given intravenously. The secretion from the left side showed much pus and no phthalein appeared in 35 minutes. Urine from right side showed no pus, small amount of albumen, the phthalein appeared in five minutes and the 30 minute output was 20 per cent. Roentgenograms show the left kidney to be much enlarged and the pyelogram showed the bromide solution infiltrated through the entire kidney. Blood Wassermann negative. Blood urea nitrogen 23 mg. per 100 cc. of blood.

Diagnosis: Left pyonephrosis. Right toxic nephritis. Patient was placed in hospital, kept in bed for two weeks, however, he continued to have temperature, the urea nitrogen remained above 20 mg. and

the phthalein output about 20 per cent. A left nephrotomy was then done, a large quantity of pus drained from the left kidney and large tube placed in the sac. The first post-operative week was rather stormy but following this the patient began to improve and when he left the hospital two weeks later the urea nitrogen was 14.7 the phthalein output 32 per cent and the general condition much improved. Two months later patient is doing his routine work in the store and has gained 18 pounds in weight. He has slight drainage from the nephrotomy wound and voids six or eight times during the day, and twice at night.

This case is of interest from the standpoint of kidney function. We felt that the toxemia from the left pyonephrotic kidney with poor drainage was responsible for the toxic nephritis and urea retention, his improvement after nephrotomy confirmed this viewpoint.

I have no time for further case reports but would like to mention two more cases before closing. The first was that of a boy 21 years old who came into the Guthrie Hospital with pain in the left kidney region and the urine was chemically and microscopically negative. No bladder symptoms. Cystoscopy and the ureteral catheater showed the left kidney to be blocked and a large pyonephrotic sac, later removed.

The second was a woman 41 years old complaining of pain in the left kidney region with frequent burning urination. Examination revealed on right side tuberculosis with total destruction of the kidney and a secondary bladder tuberculosis. The left side pain was probably due to compensatory hypertrophy of the good kidney.

I believe these cases show us that we should take nothing for granted in the urinary tract and work out each case carefully, no matter what the apparent diagnosis might be.

ACCIDENTS AND REACTIONS FOLLOWING THE USE OF THE ARSENICALS IN THE TREATMENT OF SYPHILLIS.

By L. G. BEINHAUER, M. D.

Within the past few years one notices the literature is being crowded with reports of reactions or accidents following the use of the various arsenical preparations in the treatment of syphilis. From the limited literature reviewed it appears that every arsenical preparation on the market today has been, at one time or another, responsible for some type of reaction whether it be mild or severe. It is not the purpose of this paper to go into great detail of each reported reaction, but rather, to give a short review of the important types of reactions reported, in order that, one might get some idea of the types of reactions commonly met with. An attempt has been made to properly classify these reactions according to the organ or part of the body affected; thereby giving some definite position to each reaction which results from salvarsan therapy. It is impossible, however, due to the length of the paper, to give detail to each and every reaction reported but most stress will be placed on those reactions found to be most common while the rarer reactions shall be merely mentioned to fit in with the scheme of classification.

At the same time, however, the causative factors, the theories of the reactions, the preventions or treatment of the reactions shall only be mentioned where necessary in order to confine the purpose of the paper, solely to the reactions caused by the use of this drug in the treatment of syphilis.

It is well known that arsenic in forms other than the organic preparations, which are used today, is capable of producing reactions in the human body. Cushing[1] mentions that arsenic is capable of producing an acute poisoning which may be mild or fatal, or, again, the poisoning may be chronic, associated with skin changes as Keratosis, Epitheliomatous degeneration, pigmentation or nervous affections such as disturbance of motor or sensory paths with a subsequent polyneuritis or a complete nerve paralysis. Stellwagen[2] under the classification of Dermatitis Medicamentosa states that arsenic is capable of producing many types of skin reactions; namely, the erythematous, papular, vesicular, urticarial, pustular, petechial, erysipelatous, herpetic, furuncular, carbuncular, pigmentary, kerototic, ulcerative gangrenous and epithematous (arsenic cancer). As early as 1901 such authors as Brooke and Robert[3] and Barendt[4] described a series of skin reactions which they attributed to an arsenic compound contained in beer which at that time was causing an epidemic of poisoning. Since the introduction of salvarsan (arsphenamine) and its allied compounds many reactions have been reported and it is our purpose to attempt to classify these reactions in order that, a clearer idea may be obtained of these reactions which are caused by the use of the arsenicals in the treatment of syphilis.

Accidents or reactions following the administration of the Arsenical preparation can be divided into two general classes; namely, the early or immediate reactions and the delayed or late reactions. The early or immediate reactions may be classified as:

(a) Local.
(b) General.
(c) Nitritoid.
(d) Embolic.
(e) Death.

The late or delayed reactions may be classified as:

(a) Skin and Mucous Membranes.
(b) Internal Organs.
(1) Stomach.
(2) Intestine.
(3) Liver.
(4) Kidney.
(5) Spleen.
(6) Pancreas.
(7) Adrenals and other organs.
(8) Reproductive organs.
(c) Nervous.
(1) Cerebral.
(2) Cerebellar.
(3) Spinal.
(4) Meningeal.
(5) Sympathetic.
(d) Special Senses.
(1) Sight.
(2) Hearing.
(3) Smell.
(e) Respiratory.
(f) Circulatory.

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2. Stellwagen: Diseases of the Skin. 8th Edition. 1915. Page 482.
3. Brooke and Robert: Action of Arsenic on the Skin as Observed in Recent Epidemic of Arsenical Beer Poisoning. Brit. J. Dermat. 13:120 (April) 1901.
4. Barendt: The Skin Lesions Due to the Presence of Arsenic in Beer. Brit. J. Dermat. 13: 148 (April) 1901.

EARLY OR IMMEDIATE REACTIONS

One of the most common, yet one of the most preventable, accidents one meets is the infiltration of the tissues. This is due to the fact that the needle is not properly inserted into the vein and the injection is forced into the surrounding tissue. When this happens the patient usually complains of a burning, stinging or painful sensation about the site of injection. The operator then usually notices a localized swelling and the fluid ceases to run from the syringe or container. When this happens the needle should be withdrawn and another attempt made to insert the same. It is the method of the author to attempt to ascertain a back flow of blood from the vein into the syringe or tube before attempt is made to inject the fluid and this precaution usually is sufficient, under ordinary circumstances, to prevent this accident. This infiltration may lead to a local infection or ascending infection of the arm causing a phlebitis, ulceration or even a paralysis of the arm which will be considered under the proper headings, or the infiltration may be mild giving no severe local symptoms and be absorbed within 24 to 48 hours. The next common local reaction is the sensation of pain through the course of the vein injected. This condition is usually due to the action of the drug on the lining membrane of the vessel or due to an excessive alkali in the solution injected from improper preparation. This condition is usually transient although it may persist for many hours and is often followed by changes in the vein.

A common immediate general reaction usually consists of a gastro-intestinal reaction from which the patient complains of headache or nausea or an unruly sensation in the stomach region. If more severe, the patient may develop an erythematous rash about face, neck and chest with an attack of vomiting or even incontinence of urine or feces. The drug injection should always be stopped when the reaction occurs. This is a common "table reaction." Again, some hours after injection the patient may show a similar picture as above described especially when aggravated by such forces as riding an elevator or returning home by train or street car. It has been found most of the patients have eaten a heavy meal shortly before or after the injection, thus precipitating such an attack.

The most serious "table reaction" —the Nitritoid reaction—so called because of its resemblance to symptoms presented by patients taking large doses of amyl nitrite—is not an uncommon occurrence. This reaction usually occurs immediately or after the drug is injected and is characterized by the following symptoms:

The veins of neck become suddenly engorged, the face red, the conjunctiva injected, a swelling of face and lips may be present. If more severe, an edema of the lips, tongue, palate and post pharyngeal wall may be present. Patient usually complains of severe headache and dyspnea is evident. This may go on to syncope, small pulse, cold clammy sweat of body and finally death. In favorable cases, however,

the recovery is rapid and is usually followed by a period of malaise and great fatigue. This type of reaction has received much attention by various authors and it is interesting to note the opinions of the same. Mouradian[5] states patients suffering from chronic enteritis, constipation and dyspepsia are most apt to develop this reaction. In a report of 19 cases, 14 cases showed a marked dyspepsia, gastro-intestinal ptosis or fecal stasis which is interpreted by the author to show a direct relationship between this reaction and the gastro-intestinal condition. Milian[6] states the crises is due to adrenalin insufficiency and sympathetic nerve system disturbance. With an improper gastro-intestinal function, an auto-intoxication results acting upon the adrenals and the sympathetic system causes an insufficiency of the secretion and a disturbance of the innervation. This, he states, is relieved by adrenalin administration. Levy and Juster[7] claim the nitritoid crisis is dependent upon an endocrine disturbance. Other authors[8] describe these reactions as anaphylactic due to injection of the arsenicals. These, however, may be classed with the nitritoid groupings.

Accidents or reactions due to embolism (air) injections is rare and in my casual review of the literature I did not find an authentic case on record. Warning, however, must be given as the introduction of large amounts of air into the circulation as well as introducing impurities, such as dirt, dust particles, glass, which can be prevented by proper technique in preparation, can cause fatal results.

Fatal results from these injections are not by any means a rarity. Fraser[9] reports a fatality following a single dose of neoarsenobillon. Schrup[10] reports a death fifty-five (55) hours after the administration of neo-salvarsan. Other cases are reported in literature and it is now not an uncommon occurrence to hear of a death due to a salvarsan injection.

Late or Delayed Reactions

(a) Skin and mucous membranes.
(1) Dermatitis.
(2) Exfoliations.
(3) Herzheimer.
(4) Lichenoid.
(5) Urticarial and Edematous.
(6) Icteric.
(7) Purpuric.
(8) Fixed eruptions.
(9) Herpetic.
(10) Keratotic.
(11) Pigmented.

Of the reactions reported those affecting the skin are most frequent and varied. In order to give a more complete picture of these reactions, each shall be considered separately but briefly, bringing out only the essential points which are presented by the eruption as they appear clinically.

Dermatitis

The most common skin reaction due to the salvarsan group is a Dermatitis. This varies in type, form and severity from a mild erythema to a severe reaction of the

5. Mouradian: Nitritoid Crises—Patients Suffering from Chronic Enteritis, Constipation and Dyspepsio. Paris Med. 12:172, Aug. 19, 1922.
6. Milian. Quoted by Stokes & Cathcart (20).
7. Levy and Juster: Nitritoid Crises and Endocrine Disorders. Bull. Soc. franc. de. dermat. et syph. Paris, p. 286, No. 6, 1922.
8. Thorn: Acute Anaphylactic Reaction Following Intravenous Injection of Arsphenamine. N. Y. State Med. Jour., April 1, 1923.
9. Fraser: Report of Fatal Case of Dermatitis Following the Administration of Single Dose of Neoarsenbilon. Jour. Urol. and Cut. Diseases, Vol. 27, No. 8, Aug. 1923, page 521.
10: Schrup: Death 55 Hours After Intravenous Administration of Neosalvarsan. Am. Jour. Syph. 6:544, July 1922.

entire skin a few degrees short of an exfoliation. The erythematous type usually appears about 9 days after the injection. It may be associated with a mild or severe febrile reaction, nausea or vomiting and sometimes a diarrhea. The skin assumes, in the mild cases, a moderate flush usually about the face, neck and flexors surfaces of the arms and legs or it may show, in a severe case, a diffuse rose red, heated edematous (especially about dependent parts, eyelids and face), shiny or oozing, tender skin. It, again, may assume a morbilliform or a scarletinoid form resembling Measles or Scarlet Fever. This reaction can be complicated by a slight nephritis or cystitis (as seen in author's case) which gradually clears up with the body rash within 10-20 days without exfoliation leaving the patient greatly fatigued and weakened. Many papers have been written on this type of reaction which has been closely studied by Van Asselt[11], Fraser[9], Krott[12], Klaar[13], Stokes[14] and McBride and Dennie[15] to whom readers are referred for more thorough description.

Exfoliations

Skin exfoliations caused by the salvarsan group are frequently reported and are usually grave or serious when they occur. Such writers as Meyniard[16], Smith[17], Shafer[18], Thompson[19], Stokes and Cathcart[20], Stokes[14], Latham[21], McBride and Dennie[15], Scheer[22], Lees[23], and Trimble[24] lay especial stress on this reaction and the gravity of its occurrence. It might be well to consider here, in brief detail, the essential points of this reaction.

It appears three or more days after the injection. It is usually preceded by a district chill or chilliness, malaise or vomiting. The skin becomes hyperemic and red, with slight perceptible inflammatory infiltration; later it becomes more pronounced and after a short period the characteristic exfoliative features appear taking place in thin, variously sized flakes or it may show slightly thick imbricated scaliness. The underlying skin is smooth red, shiny or it may be wet with secretion, especially about the flexor surfaces, but later changes from a red to yellow tinge. There is usually a fever and evening exacerbations. With an abation of the symptoms the skin loses its inflammatory reaction, skin becomes less red and exfoliation gradually declines. A mild

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11. Van Asselt: Nederl. Tijdschr. V. Geneesk., Haarlem., 66:1055, Sept. 2, 1922.

12. Krott: Toxic Arsphenamine Dermatitis. Arch. f. Dermat. u Syph. Berlin, 141:9, Aug. 31, 1922.

13. Klaar: Contribution to the Study of Dermatitis of Arsphenamin or Mercury Occurring During the Treatment of Syphilis. Wein. Klin. Wchnschr. 35:266, 1922, ibid 35:297, 1922.

14. Stokes: Applications and Limitations of the Arsphenamine in Therapeutics. Arch. Derm. and Syph. 2:303. Sept. 1920.

15. McBride and Dennie: Arsphenamine Dermatitis. Arch. Derm. and Syph. Vol. 7, No. 1, Jan. 1923, page 66.

16. Meyniard: Accidents Following the Administration of Arsenical Preparations. Clin. Opht. Paris 11:429. Aug. 1922.

17. Smith: Exfoliative Dermatitis after Arsphenamine Injection. Arch. Derm. and Syph. 4: 554. June 1921.
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18. Schafer: Ein Fall von Exfoliative Arsendermatitis and Hyper-Keratosis. Dermat. Zentralblat 2:246. 1921.

19. Thompson: Exfoliative Dermatitis Following Silver Arsphenamine. J. A. M. A. 79:628 (Aug. 19) 1922.

20. Stokes and Cathcart: Contributory Factors in Post Arsphenamine Dermatitis. Arch. Derm. and Syph. Vol. 7, No. 1, page 14, Jan. 1923.

21. Latham: Exfoliative Dermatitis Due to Arsphenamine. Report of Fatal Case. J. A. M. A., 73:14, July 5, 1919.

22. Scheer: Exfoliative Dermatitis Following Arsphenamine. Arch. Derm. and Syph., Vol. 8, No. 1, page 113, July, 1923.

23. Lees: Brit. Jour. Derm. and Syph., 34:

24. Trimble: Arch. Derm. and Syph. Soc.

nephritis or cystitis may accompany this reaction. This condition may be fatal within the first few days or may gradually clear up in a few weeks or cover a period of months in duration.

Herxheimer

The Herxheimer which represents an exacerbation of local skin lesions is often met with. It usually appears from 24-48 hours following the injection, may be associated with such symptoms as fever, malaise, nausea or vomiting, increased pulse rate and headache. The reaction, while usually not severe, subsides in a fortnight leaving no permanent injury to the patient or the skin. Kreutzmann[25] gives an excellent discussion of this reaction while Camplani[26] reports a similar reaction in a leper treated with salvarsan.

Lichenoid

Another group of unusual skin reactions — the Lichen or Lichenoid Eruption—used synonymously with the term papular, although misleading and probably obsolete unless qualified by an adjective as Lichen Planus or Lichen Scrofulosis, has received much attention within the past few years. McCaffrey[27], Wirz[28], Crawford[29] and Marenbach[30] described cases that most closely resembled a Lichen Ruber Planus. McCaffrey's case so closely resembled a Lichen Ruber Planus that by microscopic examination of tissue, it was unable to detect whether the eruption was primary or from the arsenical reaction on the tissues, Wirz, in his report, brought out the question whether the eruption was due to the arsenic reaction or merely a coincidence happening during the course of arsenic therapy. Parounagian[31] described a case which he mistook for Lichen Rubra Pilaris following arsenical injections. It may also be mentioned here that the lesions not only on the body but also on the mucous membrane, especially the Lichen Ruber Planus eruptions, are hard to differentiate. Besides the lesions usually described as associated lesions of the mucous membranes, very definite reactions as Arsenical Stomatitis[32] have been reported as occurring during the course of intravenous salvarsan therapy.

Urticarial and Edematous

The Urticarial reactions, while not so frequent, are common enough to be mentioned. Fox[33] described an eruption simulating an Erythema Multiformes of the palms. Polland[34] reported a case of Urticaria with an associated Angio-neurotic

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Transactions, Vol. 8:2, August, 1923.

25. Kreutzmann: Unusual Reaction Following Anti-Syphilitic Treatment with a Discussion of the Jarisch-Herxheimer Reaction. Am. J. Syphillis, 6:539, July 1922.

26. Camplani: Herxheimer Like Reaction in Leprosy Treated with Neosalvarsan. Gior. Ital. d. mal. ven. Milan, 63:926. No. 4, 1922.

27. McCaffrey: Lichen Planus Eruption Following Arsphenamine. Arch. Derm. et. Syph. 6:591. Nov. 1922.

28. Wirz: Occurrence of Lichen Rubra Pilaris and Lichen Planus Like Exanthems in Syphilis and Salvarsan Courses. Derm. Wchnschr, Leipsic, 75:745. July 29, 1922.

29. Crawford, Dr. Stanley: Personal Communication.

30. Marenbach: A Contribution to the Question of Lichen Planus or Arsphenamine Eruption During Treatment of Syphilis. Derm. Wchnschr. 75:1233. Dec. 23, 1923.

31. Parounagian: Silver Arsphenamine Dermatitis Resembling Pityriasis Rubra Pilaris.

32. Clement-Simon: Arsenical Stomatitis. Bull. Soc. Franc. de Dermat. et Syph. 30:47, 1923.

33. Fox: Palmar Eruption of Erythema Multiformes following Arsphenamine Treatment. Arch. Derm. and Syph. Vol. 8, No. 3, 439, Sept. 1923.

34. Polland: Derm. Ztschr. Berlin, 36:249. Aug. 1922.

edema. Bertaccini[35] saw five cases of edema localized to the arms and legs which he thought was a "Nitritoid Reaction." Lacapere and Lepinay[36] met with a case of Urticaria localized to the face and eyelids due to salvarsan, while Von Notthoft[37] reports a case due to Silver Salvarsan.

Icteric

Icteric caused by arsenical injection in the treatment of syphilis is becoming more commonly recognized. Gaston and Pontoizeau[38] reported twelve cases, either early or late, which occurred in series of 13,000 injections given to 1,600 patients, in which jaundice developed. They found that the younger individual, especially those in the secondary stage of syphilis, developed the reaction after one or two courses had been given. Wosegien[39] states this is a common reaction. Holland[40] reports the "Icteric reaction" develops from an intestinal catarrh caused by the salvarsan. Golay[41] described a fatal case due to jaundice, while Von Falkenhausen[42], Chargin and Orgel[43] attempt to find the causative factors, detection and prevention of this common reaction, the latter laying stress on the bilirubin content of the blood.

Purpuric

Skin hemorrhages add another series of reactions which can be produced by intravenous arsenic in the treatment of syphilis. According to Rabut and Oury[44] who reported two fatal cases from neoarsenobenzol therapy, the purpric reactions can be classified as:

(1) Small isolated hemorrhages as: Epistaxis, metorrhagia or hemotysis (in tuberculous patients).

(2) Simple purpric eruption with or without definite hemorrhages, of a benign nature, not effecting the patient.

(3) Purpura rheumatica.

(4) Acute purpura hemorrhagica with fatal prognosis.

As a prevention these authors advise "coagulation time tests" wherever the slightest intolerance occurs. Other writers, Jarecki[45], Freit[46], Callamon[47], Florand, Nicaud and Froment[48] have reported cases. Callamon describes a case of Purpura Hemorrhagica associated with hematuria and followed by a fatal pulmonary hemorrhage. Florand attempts to explain the reaction on a hemogenetic basis. Quoting Emile Weil he states "there is a previous existence of a special fragility of the blood and blood ves-

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35. Bertaccini: Edema After Injection of Arsphenamine. Policlinico, Rome, 30:690. May 28, 1923.

36. Lacapere and Lepinay: Localized Eruptions following Injections of Arsphenamine. Bull. Soc. Franc. d. Derm. et Syph., 30:149, 1923.

37. Von Notthoft: Erfarhungen mit Silber-Salvarsan. Deutsch Ded. Wchuschr., 45:341, March 2, 1919.

38. Gaston and Pontoizeau: Earrly and Late Icterus Due to Neo-arsphenamine. Bull. Soc. Franc. de Dermat. et Syph., 30:41. 1923.

39. Wosegien: Arch. f. Dermat. ie. Syph. Berlin, 141:105, August 31,, 1922.

40. Holland: Icterus During and After Salvarsan Treatment. Acta Dermato-Veneriologicen.

41. Golay: Fatal Case of Late Jaundice Due to Neo-Arsphenamine. Ann. d. mal. vin., 17:881. Dec., 1922.

42. Von Falkenhausen: Pathogenesis of Arsphenamine Icterus. Deutsch. Med. Wchnschr., 48:1173. Sept. 1, 1922.

43. Chargin and Orgel: Jaundice In Syphilitic Persons Receiving Arsenical Medication; Its Early Detection and Possible Prevention. Arch. Dermat. and Syph. Vol. 7, No. 4. April, 1923.

44. Rabut and Oury: Arsphenamine Purpura. Presse Med. 30:800 (Sept. 23) 1922.

45. Jarecki: Deutsch. Med. Wchnschr., 48: 1174. Sept. 1,, 1922.

46. Freit: Skin Hemorrhage in Salvarsan Injections. Etiology of Hemorrhagic Encephalitis. Munsch. Med. Wchnschr. 69:1345. Sept. 15, 1922.

47. Callamon: Derm. Wchnschr., 75:1197. Dec. 9, 1921.

48. Floraud, Nicaud and Froment: Hemorrhagic and Purpuric Syndrome in Course of Arsenical Treatment of Syphilis in a Hemogenic Patient. Bull. et. Soc. Med. d hop de Paris, 38:1266. Aug. 3, 1922.

sels to which is added a hemolytic toxic process due to the injection of the drug.

Fixed Eruptions

The "fixed reactions" are probably the most interesting and are not commonly met with. Stokes and Cathcart[20], Levin[49], Fuchs[50], Schonfeld[51], Thebierge and Mercier[52], Holliday[53] and others have frequently noted this condition which has increased in frequency since the recent World War. It usually appears as a localized urticarial reaction which subsides between treatments is often followed by a variable pigmentation which may persist for months. Following each subsequent treatment there is an exacerbation of this same eruption. Such an eruption after a series of repeated exacerbations may assume the clinical picture of a chronic localized squamous eczema or a neurodermite of the French authors. Again, it may so closely resemble the eruption of antipyrin or phenophthalin from which, at first, from the clinical picture presented, it is very hard to distinguish. This type of reaction always leaves a pigmentation which most often persists for months.

Herpetic

The herpetic eruptions are rather uncommon. Crawford[29] saw a case of Herpes Zoster following the injection of salvarsan. Holliday[53] states Herpes Simplex of buccal mucous membranes is most common of any reaction met with.

Keratotic

Some writers doubt the existence of a Keratosis from the intravenous arsenic therapy. This condition when seen is usually confined to the palms of the hands and soles of the feet. Shafer[18] reports a case complicating an extreme exfoliation while Goodman[54] saw a case complicating a generalized pigmentation. The Keratotic reaction from intravenous salvarsan is doubted by some writers. Definite cases by Goodman[54], Laurentier[55] and Shafer[18] who reported palmar and plantar Keratosis, the former with a post arsphenamine pigmentation and the latter complicating a severe exfoliation. In both cases, the hyper-Keratosis was typical of the type obtained by continued use of arsenic by mouth.

Pigmented

Arsenical pigmentation following the intravenous therapy has also been observed. Much discussion, after the case reported by Lochte[56] has arisen which could not be proved as a true case of Argyria from silver salvarsan. Goodman[54] reported a doubtful case of pigmentation from salvarsan. Paraunagian[57] reported a pigmentation following silver salvarsan. Gans and Heber-

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49. Levin: Fixed Eruptions and Pigmentation from Arsphenamine. Arch. Derm. and Syph., Vol. 8,, No. 1, page 109. July 1923.

50. Fuchs: Fixe Salvarsanexauthen. Deutsch. Med. Wchnschr., 45:1276. Nov. 13, 1919.

51. Schonfeld: Fixe Salvarsan Exauthame. Deutsch. Med. Wchnschr., 46:11. Jan. 1, 1920.

52. Thebierge and Mercier: Taches Erythemat Opigmentes a Repetition "in situ" a la Suite d' Injection de Novarienbenzol. Bull. Soc. Franc. der Dermat. et. Syph., 93. 1919.

53. Holliday, Dr. G. A.: Personal Communication.

54. Goodman: Post Arsphenamine Pigmentation and Arsenical Keratosis. Arch. Derm. and Syph., 3:1, page 90. January 1921.

55. Laurentier, C.: Bull. Soc. Franc. de Dermat. et Syph., 6:276. 1921.

56. Lochte: Quoted by Michelson and Liperstein. Arch. Derm. and Syph., 4:2, page 193. August 1921.

57. Parounagian: Pigmentation After Silver Arsphenamine. Arch. Derm. and Syph., Vol. 5, No. 6, page 824. June 1922.

man[58] and Gans[59] gave an excellent paper on the arsenical pigmentations with a histologic picture of the same.

Internal Organs

The liver is disturbed in all cases showing an icteric or jaundice reaction of the skin. It is claimed the acute yellow atrophy might follow salvarsan but such reports are not authentic so far as the author reviewed the literature. Kirch and Freundlich[60] and Chargin and Orge[43] give interesting reports, the former stating that excessive Urobilin and urobilinogen in the urine proves a disturbance of liver function when arsenical therapy is given. Aside from the reactions, of nausea, vomiting, diarrhea, no serious reactions are found along the gastro-intestinal tract. Spleen, adrenals and pancreas, so far as known, show no individual reaction which has been recognized. The same may be said concerning the Reproductive System, although Gougerot[61] reported 2 cases due to "nitritoid shock" in pregnant women which caused a severe headache, heat in abdomen, uterine contraction and hemorrhage which was followed by the expulsion of the foetus.

58. Gans and Heberman: Arsenical Melanosis. Derm. at Ztschr., 30:63. 1920.

59. Gans: Zur Histologie der Arsenmelanose Beitrage. Zur. Path. Anatom. u. z. Alleg. Path., 60:22. 1914-1915.

60. Kirch and Freundlich: Arch. f. Dermat. u. Syph., 136:107. 1921.

61. Gougerot: Nitritoid Shock of the Uterus Under Arsenical Treatment. Bull. de la Soc. Med. des Hospt. Paris 47:865. June 15, 1923.

Nervous

Cerebral — Authentic cases of apoplexy have been reported by Meyniard[16] and Gonin[62]. This usually occurs two or three days after the injection and is associated with a severe headache, nausea then vomiting of blood, extreme agitation of epileptiforme attacks, clonic and tonic convulsions, the attack lasting one or more minutes followed by coma and death on the fourth day.

Encepthalitis has been seen by many observers as Guy[63], Meyniard[16], Freit[46], Sinn[64], Caluzzi[46] and Lloret[65]. This reaction also is usually fatal.

Paralysis or paresis of the facial, oculo-motor, auditory nerves have been noted[5]. Aphasia due to motor origin has been seen by Desantles[66]. As yet no definite reaction has been noted confined strictly to the cerebellar lobes. Meningeal irritation is not uncommon. Meyniard[16], Freit[46] and Caluzzi[16] have reported cases of this type. Meyers[68] reported a doubtful case of myclitis following salvarsan. Definite cases of nerve palsies and multiple polyneuritis have been seen[69]. Aside from the

62. Gonin: Serous Apoplexy Following Salvarsan. Rev. Med. de la Suisse Rome, 42:775. December 1922.

63. Guy, W. H.: Personal Communication.

64. Sinn: Munschen Med. Wschnschr, No. 43, page 1228. October 24, 1919.

65. Loret: Hemorrhagic Encephalitis Following Salvarsan; Sec. Transactions. Arch. Derm. et Syph., Vol. 5, No. 4, page 524. April 1922.

66. Desantles: U. S. Navy Med. Bull., 18:370. March 1923. Motor-Aphasia—Case with Symptoms Following Neoarsphenamine Injections.

67. Meyers: Questionable Salvarsan Myelitis. Internat. Med. and Surg. Survey, Vol. 4, No. 1-3. July 1922.

68. Milian and LeLong: Bull. Soc. Franc. de Dermat. et Syph., 30:22. 1923.

69. Keemer: Arsphenamine Dermatitis with Ulceration of Cornea and Scarring. Soc. Transactions, Vienna Derm. Soc., Vol. 7, No. 6, 867. June 22, 1923.

relation of the sympathetic system to the "nitritoid reaction" given above no definite reactions have been reported due to this drug therapy.

Special Senses

Of the special senses cases of optic neuritis[5], conjunctivitis[5], corneal ulceration followed by scar formation[70] have been reported. Disturbed function of the auditory apparatus[5] has also been met with. Nothing definite is reported of olefactory disturbance.

Respiratory

The respiratory tract has been a seat of interesting reactions judging from the material on hand. Lenzmenn[71] reported a case of substernal pain, marked stridulous breathing, and a croupous cough which lasted two days. Reicke[72] reported a case of fatal broncho-pneumonia associated with an exfoliation which appeared secondary. De Beyrouth[73] saw a typical asthmatic attack precipitated by the injection in a patient, who never before had an asthmatic affection. Frequent transient respiratory embarrassment is usually seen with the nitritoid reactions.

Circulatory

The circulatory disturbances are usually confined to the phlebitis or thrombo-phlebitis which often are met with in the course of treatment. These conditions may be mild, causing the patient only local symptoms or they may be severe, practically making the arm useless for the duration of the reaction and be accompanied by severe reactions as fever, swelling, pain, abscess or even gangrene formation, leaving the patient with complications as severe scar formation with deformity and contractures or even paralysis due to nerve destruction.

It is self evident then that the number of reactions reported are very numerous. Most all the important organs of the body have been subject to reactions, caused by salvarsan or its allied preparations. The alarming rate at which reactions are occurring must surely be a stimulus to those using the drug to take every necessary precaution, in order that these reactions might be prevented. It should further stimulate a closer observation of patients receiving the drug and cause a deeper study of the probable or known factors, which we already know precipitate an unfavorable reaction from this method of therapy. It shall not be until all methods of preparation of drug and patient, of administration of drug, of study and eliminating the factors assisting in or precipitating the reactions, have been carefully studied and prevented that we can safely use this means of therapy without fearing severe complications as they now confront us.

5026 Jenkins Arcade.

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70. Lenzmann: Deutsch. Med. Wchnschr., 45: 355. March 17, 1919.

71. Riecke: Fatal Case of Resp. Dermatitis and Broncho-Pneumonia. Schwere Erschein ungen nach. Silber Salvarsan in Cinem Florides Syph. Med. Klin. No. 14, page 329. April 3, 1919.

72. De Beyrouth: Bull. Soc. Franc. de Dermat. et Syph. No. 6:203. 1920.

THE WEST VIRGINIA MEDICAL JOURNAL

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PUBLIC POLICY AND LEGISLATION

The medical profession in West Virginia is awakening to the need for a more aggressive spirit in its relationship with the public. This change has been particularly noted by your editor in correspondence received during the past year. The trend of thought seems to be that our profession and our motives are misunderstood to a great extent.

That we have not fulfilled our full duties as physicians toward our fellow citizens is readily admitted, I think. One explanation may be that we are, as a class, somewhat averse to "cramming ourselves down people's throats" as it were. We have felt it would be beneath our dignity to do this, and then again we have not wished to enter into controversies with biased critics as to the legitimacy of our motives. The experience of the last session of the legislature was, to say the least, rather unpleasant in this respect.

The recent letter sent to all the members of the association by Dr.

C. A. Ray, chairman of the Committee on Public Policy and Legislation should be carefully read. Then on top of this comes the address of Dr. Ogden, which appears in this issue of the Journal. Read it carefully also.

This present year is going to be a momentous one for our profession in this state. Policies must be adopted which will meet the demands of the times. It is useless for us to sidestep the questions which confront us. It is just as cowardly as it would be to hesitate to operate for a gangrenous appendix or make a Caesarian section if necessary. Because we see the easy way, hoping things will turn out all right, is just as inexcusable in one case as in the other.

Several of our past presidents have pointed out changes in our organization which have seemed to be imperatively needed. The chief one has been to have a full time executive officer and the development of a plan of closer cooperation. So far this has been tabled or pigeon-holed each year. The time has come, it would seem, when this issue must be faced.

The committee of which Dr. Ray is chairman, has made an excellent beginning of the years work. The various local societies have ample time to discuss the questions of an executive secretary and of public policy and legislation that they may give their delegates some idea of their wishes when these matters come before the House of Delegates at the meeting in Wheeling. These things must be decided. Are we going to really get together and truly accomplish things or shall we continue to drift along as in the past and undergo more embarrassment in Charleston during the next session of the legislature?

It has seemed to the Editor that other states have the questions of public policy and legislation to face as well. The following editorials have been taken from the journals of other state associations and are published in the hope of awakening interest and discussions in our local societies, in order that we may assemble in Wheeling determined to accomplish some constructive legislation which will be productive; that will make our association accomplish greater things for West Virginia.

INDIVIDUAL RESPONSIBILITY

How true it is, especially in a distinctive group such as the medical profession, that undertakings and activities through organization depend primarily upon your personal knowledge of its problems and your personal efforts in meeting them.

Too often under the stress of active practice, together with divergent interests, the individual physician is inclined to forget that problems in medical practice are his own personality as well as those of organized medicine.

Obviously, individual activities are never so effective in the solution of group problems, as those which are the result of unity and cooperation.

In decrying the lack of interest in medical society meetings and the counter interests in other activities, one county society secretary says: "My contention is that if doctors do not take their profession seriously who in the world is going to do so? If everything comes before the med-

ical society in importance, how much of a part in human affairs can the society play? It seems to me that now-a-days with total energy not superior to that of five generations since, we cannot hope to spread it over a multiplicity of affairs without experiencing an attenuation dangerous to results."

Doubtless he is right, although he probably did not mean to complain against the interest which physicians should take in social and civic affairs as leading citizens of their community. He probably did mean to protest against too great indifference in medical affairs and in this he is justified.

Too often physicians fail to realize the value and strategic advantage which lies in their county medical society as a medium of genuine leadership not only in possible good for the profession but in accomplishment for the public good.

Members of county medical societies are in immediate contact not only with scientific problems, but also with problems of a social and economic nature.

Thus only through proper organization, augmented by individual interest, can each member benefit from the influence and status of the whole profession; enabling the profession—through organization—to act as a forceful unit in matters of common interest of local, state and national scope.

Just as the success of the county unit depends upon the individual members of the profession, so does the Ohio State Medical Association gain in strength and approach its ideal in direct proportion to the manner in which its integral parts develop. Medical organization, its success or failure, in the final analysis, rests on the county medical societies and academies functioning in unity.

With the profession's ideals, vision, and contact with all the vital forces of civilization, the benefits, influence and constructive possibilities from medical organization will be unlimited when, and only when, interest, harmony, cooperation and aggressive activity are combined in every county society.—Ed. Ohio Med. Jour.

WHY QUACKS SUCCEED; TURNING OUT DOCTORS WHO CANNOT REMOVE THEMSELVES FROM MILLION DOLLAR HOSPITALS.

As a rule the quack or charlatan is a surfacely humble person speaking the familiar patois of whichever pond he finds himself swimming.

The old fashioned saddle-bag doctor who had the confidence and the heart hold on his ailing public was much the same kind of a man. The quack has stolen the manner of the family practitioner and uses it to disguise his lack of skill.

One of the levers by which the medical profession has been forced aside from those who need most the skilled doctor is this turning of the back upon the old-fashioned virtue of humility.

To a large percentage of newly made medical men there is no day of small things. They must be the biggest toads in the largest marble basins to please their own bumps of self-approbation.

The medical profession is losing its grip upon the people because a section of this profession forgets that after all, the world over, it is the people themselves, not a hand-

ful of plutocrats, that must be served.

Small communities in rural districts in every state in the union find themselves without doctors. Yet there are physicians and to spare in all of the great cities and the silk-lined institutions. In the mountainous regions a sheepherder far from civilization, when his harness gives out, uses a piece of baling wire. When the sheepherder finds himself and his nearest community lacking a real doctor, he takes the handiest substitute he can find, whether it is a mail-order nostrum, or a traveling charlatan, or some bogus new thought stunt, or an electric-treat-yourself-at-home.

The situation has been epitomized well in pleas for new methods in medical education that will "produce doctors equipped to operate without million-dollar hospitals. Full time medical education in marble halls," as has been said, "is not producing practitioners qualified to cope with the needs of the average American community of today. In New Hampshire there are 68 com munities without doctors. In Vermont the state is offering a bonus to physicians who will establish themselves there. This deplorable condition is due to the fact that medical schools turn out doctors who cannot remove themselves from million-dollar hospitals."

It takes courage for a young man to tear himself away from the extreme modernity of an up-to-date institution and to go out into the highways and byways and dispense the healing art that they have sworn to give to the ultimate degree to those who suffer and die. The power of courage seems to have become vapid among thousands of the younger medical men. What they are looking for in only too many instances is a soft job along the lines of least resistance, with a good fat corporation pay envelope, or the comparative ease and chances for sometime distinction that accrue from the apprenticeship to a distinguished specialist.

For the work that gifted specialists and great institutions have done the medical profession as a whole and as individuals is grateful, but the whole of a tree is not its top. Without the network of roots deep below the sward and stretching in endless ramifications, without the modest, leafless trunk, through which the sap speeds, nourishment to the topmost leaf, the great oak could not be. The very foundation of the tree lies away from the sunlight and the admiring eye. It is so with the foundation of medical service. There are times when necessity demands that men shall hide their lights under the metaphorical bushel. Those same country districts, whose votes can elect or defeat a president, offer the leverage for a return of the confidence from the public, that is so essential to the welfare of science and, greater yet to that national wealth, public health.—Ed. Ill. Med. Jr.

MEDICAL PRACTICE ACT

The unearthing of unqualified physicians in the state of Connecticut is likely to prove a blessing to the whole country. How so many men inadequately prepared to treat the sick could have been admitted to practice is hard to understand. Either the board of examiners were false to their duty or exceedingly careless in not determining the

character of the schools from which these men graduated and confirming the statements on their applications for examinations and the authenticity of their diplomas.

The Rhode Island State Board of Health has reviewed their records to determine whether any men have passed who graduated from diploma mills and report that while only one man's license might be questioned there were several men admitted to practice who did not measure up to their own standards. Under the stress of war conditions some of these were admitted to practice and there may be some excuse in these cases, although it seems unfair to physicians who were given licenses before or since these conditions prevailed.

During recent years more and more pressure has been brought to bear upon state governments to let down the bars for the admission to practice of the various cults and even to pass men who are graduated from regular schools of inferior quality. Many citizens rail against the regular physicians as constituting a trust which is contrary to the constitution of the several states and the United States, but it cannot be denied that the public generally wish to be protected from the possibliity of employing so-called physicians who are not qualified to take the responsibility of life and death. Honest physicians are not afraid to admit their limitations, but they can be trusted to make correct diagnosis in most cases and prescribe the treatment which has up to the present time been found to be efficacious.

If the people in general want to recognize only scientifically trained men and permit only such men to be given permission to treat sick people now is a favorable opportunity to find out. The press has quite generally taken their stand in the matter of the scandal in Connecticut and elsewhere and it would seem a most appropriate time to redraw the medical practice act of the state.

If it is so drawn that every candidate will have been educated in anatomy, physiology, pathology, chemistry and other basic sciences and also have been taught and shown how to diagnose disease in recognized schools, there need be no fear poorly trained men will be foisted upon the public, so long as such a law is strictly administered.

But with those who ignore the basic medical sciences, and that disease is imagination or due to a displaced vertebra, it is useless to argue. There have always been quacks and there always will be, but prevent by all means a state board of health being compelled to recognize them in any way. The state should never put its stamp of approval on them.

If the medical practice act in this state is to be redrawn it should be done very carefully, and the state board of health should consult with the various physicians who might be able to help them and the final draft submitted to the Rhode Island Medical Society for their approval. There is little doubt that they would be willing to do this, for it would be of immense help to them to bring about the enactment of such legislation.—Ed. R. I. Med. Jr.

SHEPPARD-TOWNER ACCOMPLISHMENTS

The first annual report of the federal government bureau in charge of administering the Sheppard-Towner Maternity and Infancy act is out.

Advance notices of this report state that it is the "first official report of activities under this act, through which Congress is permitted to appropriate $1,240,000 annually."

These states are listed as not participating: Vermont, Massachusetts, Rhode Island, Maine, Louisiana, Illinois, Kansas and Connecticut.

Extension of the "benefits of the act" are recommended in the report for Alaska, Hawaii, Porto Rico and the Philippines.

During the year a habit-clinic was held at Boston, a survey of nutrition work in nine eastern cities conducted, an investigation of children's diets made in District of Columbia, investigation of rural child labor and its relation to school attendance made in twelve states, investigation of children in street trades made in three cities, and here is the big thing of the report: 821,735 pieces of literature distributed and 98,533 letters received and answered.

Habit-clinics, rural child labor, school attendance and nutrition work in school may have a relationship to maternity and infancy work, but it would seem that if the Sheppard-Towner must impose its federal will upon American folks, there are more fundamentals essential to caring for mothers and infants than social studies of children after they have left the infant stage.

There is an old wheeze that there are organizations that set up programs — elaborate things — upon which the budget is raised. The coming year is then spent in altering the elaborate program to raise more money to create a more elaborate program so that more money might be raised. We wonder?—Ed. Ohio Med. Jour.

OF THE PRACTICE OF MEDICINE

Throughout the east at least, we have been thrown into a furore because of the discovery that certain men are practicing medicine without the necessary qualifications.

Our various state boards of health have been considerably criticised because of this lamentable condition of affairs — after someone has paid the price. But what are the necessary qualifications? What court has passed upon this question and what is the answer? The answer is the interpretation by the court as to what constitutes the practice of medicine; analytical but not always well defined and based upon no fixed standard.

Thirty-one years ago the Medical Practice Act was born; born of respectable parentage, but has always been poorly nourished and possessed of faulty teeth. Previous to that time any person desiring to become a "doctor" would install himself in some doctor's office, scan his books, hitch up his horse, a sort of a general "chore boy" and visit his patients after a certain length of time had elapsed in the apprenticeship; finally, if particularly ambitious and financially able, he entered some college and presumably graduated, or if he elected to neither graduate

or to go to college, stuck out his shingle instead, and proceeded to meddle with the public health. Upon the passage of the act it became necessary to register with the state board of health, although one was permitted to continue even if a nongraduate, if he had been engaged in practice six years previous to the passage of said act.

Some wiseacre has said that "extensive medical knowledge was one of the least requisites to a successful practice" and this was often borne out by the quackery of years ago and still has in the various cults a living and thriving analogue today.

In the disturbance that is now agitating our medical conscience and ethics and offending the law, there are brought out glaring inconsistencies and offenses in the medical practice law (?). Here are a few instances: A physician was called to a man who had, if memory serves, a "cold," the patient exhibited a four-ounce bottle containing a fluid (but was said to have been ineffectual) saying that the nurse at the factory had given it to him. Another reported that an indurated, red and evidently septic wound or ulceration had been treated at the home daily by an industrial nurse. A member of a family in which there was sickness was waiting in a drug store for a prescription; in came a child and told the druggist that "Mother wants something for a sore throat; something that will take the white spots off," and the child went away with a bottle. All of which will be recognized as a left-handed way of practicing medicine.

It may be true that our various state boards of health could and should be more alert and more aggressive, but conviction for an offense to our medical law is usually far from certain, as the point of vantage is, to say the least, insecure, and will remain insecure and unstable until the practice of medicine shall be definitely defined as the diagnosis and treatment of disease and should be recognized by law to mean treatment for remuneration any condition other than normal, whether the abnormality be physical or functional and to include injury and deformity.

The law should further emphasize that it is of no consequence whether the remuneration be direct or indirect, whatever agent is employed, whether internal or external; whether it is characterized by deeds, drugs or words, if it is offered with remedial intent and for remuneration.

Our law-makers could well go a step farther and demand that for equal privileges, equal standards of education would be demanded and required; but so long as our legislators are receptive to impressions and continue to lend an indulgent ear to glittering and persuasive language, special legislation and special boards will be twin spectres to haunt medical efficiency and will, if not subjugated, prove the bolshevism in the physical safety of the nation.

We endeavor to neither placate or offend and hold no brief for any state board, but when proper laws are enacted, embracing fixed standards of educational requirements, trouble with irregulars will cease to be a menace.

As citizens and as men trained to recognize the evil end-results of

ignorance, superstition and chicanery, we have no right to stand by, idle and voiceless while posing as guardians of a community's health, and as such guardians it is our business to undertake not only to defeat measures inimical to public health but to formulate constructive policies to better medical legislation.—Ed. R. I. Med. Jour.

STATE AND GENERAL NEWS

DR. MONZELL M. HOFF

Read before the Barbour-Randolph-Tucker County Medical Society at Elkins, October 29, 1923.

Dr. Monzell M. Hoff, the subject of this sketch, was born near Philippi, West Virginia, on August 20, 1859. He attended the local schools and later receiving a teacher's certificate taught several terms of school before studying medicine, which course he took in Baltimore, Maryland, graduating from the University of Maryland Medical School, April 1, 1889. He came to Philippi and Belington soon after graduation and located to practice his profession. On September 6, 1890, he was married to Ida May Teter, of near Belington. He located then permanently in Philippi and practiced all over Barbour county up until about two years before his death. He was the county health officer for a number of years and very ably filled that office. In politics he was always a republican and was county chairman for a number of years. He was a faithful member of the Methodist Episcopal Church and attended services as regularly as the demands of his profession permitted. He belonged to several orders, and in looking up his Masonic record it was found that he was made a Mason in 1884. He belonged to the commandery at Grafton and also the Shrine at Wheeling. He was a kindly man and had a host of friends all over the state. His wife died after a lingering illness in 1921, and all during that trying time he was ill himself, yet he was very devoted and attentive to her until death. His late illness began about March, 1922, and he gradually declined until his death which occurred August 19, 1923. He was buried in Fraternity Cemetery by the side of his faithful wife on August 23, 1923, with full Masonic honors.

DR. C. B. WILLIAMS,
Philippi, W. Va.

January 5, 1924.

Dr. Jas. R. Bloss, Editor,
W. Va. Medical Journal,
Huntington, W. Va.

Dear Dr. Bloss:

I am sending you a report of the last meeting of the Harrison County Medical Society for use in the Journal if you care to do so. I do not know in just what definite way we may be of use to you in your work, so please make your wishes known and we will try to respond.

The first meeting of the new year was held at St. Marys Hospital on January 3, at 8:30 p.m., at which time the following officers were installed for 1924: C. R. Ogden, president; J. E. Corbin, vice president; C. O. Post, secretary; B. S. Brake, treasurer; Wm. Gaston, censor; I. D. Cole, E. F. Wehner, J. F. Williams and Earl Flowers delegates to the State Medical Society meeting.

On taking the chair as president Dr. C. R. Ogden read a most interesting and inspiring paper in which he discussed matters of interest to the medical profession. He gave a short history of the art of healing and thoroughly covered the duties and responsibilities of present day physicians.

Dr. Robert A. Ashworth, president of the West Virginia State Medical Society, was present at the meeting and gave a splendid address. He discussed the importance of active membership in the local societies and left us with more enthusiasm than we possessed before his visit. He told us of the work of the state society and implored the cooperation of the county organizations, that the state organization may be what it should be.

Members present were: Esker, Williams, Brake, Langfitt, Ogden, Riley, Page, Goff, A. T. Post, Gocke, Slater, Paolazzi, Earl Flowers, Wehner, Cruikshank, Willis, J. E. Payne, Whisler, Ladwig, Shuttleworth, Sloan, Cole, R. J. Nutter and Wright.

Fraternally,
C. O. POST, Secy.

OHIO COUNTY NEWS NOTES

Harry M. Hall, Reporter

In looking over the meetings of other societies, particularly Cabell, Mercer and McDowell, it is noted what fine meetings they have. They have it on us up here, in at times including the ladies. I doubt if half the doctors' wives up here know what the other half look like. It would be well for us sober minded fellows up here to imitate our down state brethren in including the ladies at least once a year.

This reporter expresses the approval of several others up here in believing in a state headquarters, as outlined in the editorial of the January Journal. Somewhere in a reporting even a building (quite feasible if we had the bunch) was advocated. A couple of gargoyles placed prominently might impress irregulars with the proper respect.

On December 14, 1923, we had Dr. James S. Rector, Gastro-Enterologist, of Columbus, O., on Gastro-Intestinal Disturbances, illustrated by lantern slides.

The doctor seems to have good success in the external manipulation of the abdomen in spastic conditions of the colon. He is also a great believer in the small tube in obtaining gastric contents and other findings. His description of the easy technique he follows made it all seem like a rather commendable procedure. The reporter recalled his personal experience and could not altogether agree. The doctor also makes frequent examinations of warm stools, I take it at his office, but he did not give the floor plan of his offices. Dr. MacGregor made a good discussion of it, asking a goodly number of questions which put the reader on his mettle. It was a profitable evening although the crowd felt several innovations needed longer time before general acceptance. We don't know whether Dr. Baldwin sets the pace or not, but we will say for these Columbus men, they don't mind trying new—or old—methods in their own way, and courageously standing up for them.

On December 21, 1923, we had our own Dr. Matthew C. Zuback, not many years in Wheeling. His

subject was Vertigo. We hope this gets into the Journal, and we will leave it to you. This effort belongs to the class of papers called helpful, not usually well covered in text books, but like the measles, with us every day. There is not a practitioner who does not have a baffling time with a patient now and then who says nothing is wrong with him but dizziness, he wants immediate relief. Dr. Zubach helps you to decide. It was well received and with enthusiasm.

Every once in a while a medical society has its own quiet family meeting around the reading lamp. There are no visitors, men grow intimate and confidential. They radiate a good feeling. Men you know who openly strive to outdo each other in other times discuss each other's views with the best of feeling and quite good comradeship. If there are differences it is like a brother reproving a sister across the table with each munching a big red apple. The older ones will smile at the younger and the younger feel that after all the older are not out of date. To this reporter there is no finer body of men in any walk of life than a lot of doctors drawn into just such a scene. You wish it was that way all of the time, but of course it cannot be in this world. Better be glad it occurs at all.

Friday, January 11, 1924, Dr. Frank LeMoyne Hupp succeeded in creating just such an evening. He came back from White Sulphur Springs and wrote an article on "Some Newer Concepts of Surgery." It was in his happiest vein, and gave to us who could not go some compensation for our denial. There is probably no man who can better describe what he has heard at a meeting than Dr. Hupp. He gave colorful descriptions of most of the papers and drew the diagrams on the board of the operation of clamping the gut, in an enterostomy, in the two portions cauterizing in between, sewing up the ends blind with sutures later to be removed—uniting the ends by folding in, and after it is done remove your sutures, and you have a clean passageway, aseptic and minimum hemorrhage. The keynote of his talk was that our leading surgeons are swinging back to caution and conservatism. Enthusiastic applause greeted his effort. Then came as fine a discussion as you will usually hear in which men gave their views and recited some of their past more radical beliefs in which they followed the trend in vogue. Dr. Caldwell thanked the reader. Dr. Aikman brought up Dr. Morris' paper delivered at Beckley on the Fourth Era—a paper which, by the way, has exerted a wide influence. Dr. Noome gave an excellent discussion. The doctor may go into too much detail to suit some who must perforce always have brevity, but he certainly does add a great deal to the sum total of the information of any evening. Noome dwelt on what Hupp had said about leaving a diseased cervix alone with your knife and handing it to the man with the radium. Insisted on the conservatism of the paper as a fine sign of the times. Then came to the vexed question of drainage or removal of the gall bladder with the information that Robson had just promulgated the idea that the liver makes the material for the gall stone and not the gall bladder,

and the latter should be preserved if possible. This was a big thought and was well worth staying to hear.

Dr. Aikman had done the intestinal anastomis described, and gave his views of it, stating it was the biggest advance since intestinal surgery was tried.

Dr. Fulton closed the discussion with an extended talk. It was his view that we too often followed big men who might have a fad only to find they often completely reversed themselves in a year or two. He believes in a "surgical judgment" being attained by a man and then let it be your guide come what may. He said we might even find our friend the gall bladder some day rated as a kindly organ put there to catch the stones from obstructing the common duct. The upshot of all this conservative talk is that "big men" can't know it all. Witness Banting away out in the wilds of Canada thinking of insulin. So you men away out in the country who have had good success—honest scientific success—in large numbers of cases write anything, don't be afraid to come to the Wheeling meeting armed with the courage to speak out and to stick to it, and no doubt you will be amply repaid by helping a lot of city fellows to handle the kind of cases they see most of.

On Tuesday night the Clinical Staff at the Ohio Valley General had a largely attended meeting. Fulton had a case of Diaphragmatic Hernia with Clovis as the X-ray consultant. Hoge had an excellent paper on Trachoma. Thornton delivered what was described as a classical paper on Insulin, on which he is well nigh an authority.

The citation in the award of the Sofie A. Nordhoff-Jung Cancer Research Prize.

Dr. Johannes Fibiger, professor ordinarius in pathological anatomy at the University of Copenhagen, has demonstrated, following repeated experimentation, that parasites play an important role in the formation of certain types of tumors in the proventriculi of rats.

Furthermore he has succeeded in effecting papillomata and undoubted carcinoma through the parasite nematode. Where others have failed after years of persistent researches, he first met with success in artificially inducing malignant tumors through external irritations and so throws wide new avenues to future findings. Though the earlier results of Fibiger's work date back a number of years, he unremittingly labored towards an interpretation of the significance of parasitic irritants in malignant tumor formation, likewise of mechanical and chemical irritants. Fibiger and his associates have contributed generously to the literature of cancer production through the feeding to rats of oats and the application of tar to their tissues. In this way they have confirmed the successful work of Stahr and Yamagiva.

In a word, Fibiger's advances towards the solution of the problem of the causative irritants productive of cancer are at the same time most comprehensive and most remarkable.

His name will ever appear inscribed on the first page of the History of Cancer Research.

Marked reduction in the infant mortality rate at Thedford Mines, a small industrial city in the prov-

ince of Quebec, following a three years demonstration by doctors and nurses has led the Provincial government to make an appropriation of $500,000 to establish a chain of clinics throughout the province.

The work at Thedford Mines started with a maternity center opened by the Metropolitan Life Insurance Company early in 1921. At that time the infant mortality averaged 95 out of 281 babies born or one baby out of every three. Statistics for 1923 show that only 22 out of 300 babies died during the year.

Dr. Frankwood E. Williams was re-elected medical director of the National Committee for Mental Hygiene at the annual meeting of the board of directors, held in New York City on December 28. The following were elected members of the executive committee: Dr. Wm. L. Russell, medical director, Bloomingdale Hospital, White Plains, N. Y.; Dr. Walter E. Fernald, superintendent, Massachusetts School for the Feebleminded, Waverly; Dr. Stephen P. Duggan, director Institute of International Education, New York City; Dr. Wm. A. White, superintendent, St. Elizabeths Hospital, Washington, D. C.; Dr. Chas. P. Emerson, Dean of the Medical School, University of Indiana, Indianapolis; Dr. C. Floyd Haviland, chairman, State Hospital Commission, Albany, New York; Dr. Arthur H. Ruggles, superintendent, Butler Hospital, Providence, R. I.; and Mr. Matthew C. Fleming, attorney, New York City. Dr. Wm. H. Welch, president of the National Committee for Mental Hygiene, presided.

ANNOUNCEMENT

The Eighth Annual Clinical Session of the American Congress on Internal Medicine will be held in the ampitheatres, wards and laboratories of the various institutions concerned with medical teaching, at St. Louis, Mo., beginning Monday, February 18, 1924.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General.

ELSWORTH S. SMITH, Pres.
St. Louis, Mo.

Frank Smithies, Secy.-Gen.
1002 N. Dearborn St.
Chicago, Ill.

MEDICINE AND SURGERY

ACIDIFIED WHOLE MILK AS A ROUTINE INFANT FOOD

It is emphasized by W. McKim Marriott and L. T. Davidson, St. Louis (Jour. A. M. A., Dec. 15, 1923) that aside from any theoretical considerations involved, the only real test of the value of any method of infant feeding is the behavior of the infant receiving the food. During the last two years, approximately 90 per cent of the infants in the wards of the St. Louis Children's Hospital have been fed on undiluted whole lactic acid milk to which corn syrup has been added. Of the 142 infants whose records were analyzed by the authors 78, or 55 per cent were suffering from infections during the period of observation. These infections includ-

ed otitis media, fifty-three; pneumonia, twenty; pyelitis, thirty-eight; meningitis, three; pulmonary tuberculosis two; bacillary dysentery ten, and osteomyelitis two. Included in the series were also cases of congenital syphilis, pyloric stenosis, congenital malformation of the heart, and spina bifida; in short, the usual run of cases seen in the infant ward of any large hospital. A large proportion of the infants were much underweight. The ages of the infants varied from 2 days to one year. Six premature infants were included in the series. More than half of the infants were under three months of age. The number of days the infants were on the formulas varied from seven to 120. The average was 22 days. The average number of calories fed was 153 per kilogram of body weight (70 calories a pound). Seventeen of the infants received more than 200 calories per kilogram of body weight (90 calories a pound). For the entire group the average daily gain in weight was 28 gm. (9-10 ounce). The infants in the series rarely developed diarrhea or vomiting. None died as the result of gastro-intestinal disturbances attributable to over feeding. Most striking of all has been the fact that the mortality among athreptic infants in the hospital has fallen from 78 per cent in 1919 to 26 per cent during the past year. The method has also been extensively used in a number of the municipal feeding clinics in the city of St. Louis and in the private practice of a rather large group of pediatricians. Certainly more than 1,000 infants in St. Louis have been fed on the formulas described, and the results in St. Louis have been so generally satisfactory that a still wider use of the method is to be recommended.

THE TRANSMISSION OF ARSENIC FROM MOTHER TO FETUS

Rabbits and cats were injected with neo-arsphenamine, intravenously by Frank P. Underhill and Frank G. Amatruda, New Haven, Conn. (Jour. A. M. A., Dec. 15, 1923). After the desired number of injections had been given, the animals were killed. The tissues to be examined for arsenic were oxidized by Gautier's method as simplified by Johnson and Chittenden. The method for examining quantitatively the arsenic in the tissues was that of Gutzeit as modified by Sauger and Black. The maternal, fetal and placental tissues were examined for the presence of arsenic after the animals had received a varying number of injections. In practically every case, traces of arsenic were detected in the fetal tissues. The amount of arsenic obtained from the fetal tissues was never more than a trace, regardless of the number of serial injections received by the animal. On the other hand, examination of the maternal liver and placenta shows that the amount of arsenic recovered from them increases with the number of serial injections the animal had received. From the results obtained there is little doubt that arsenic is stored up in the placenta and maternal liver after serial injections, as contrasted with the fetal tissues.

A MODIFIED RIB-RESECTION OPERATION FOR EMPYEMA

To secure proper drainage in empyema, George Schwartz, New York (Jr. A. M. A., Dec. 15, 1923) believes that rib resection is necessary. Osteomyelitis of the rib occurs in four per cent of the cases, resulting in long standing fevers, anemia and protracted convalescence, and requiring a secondary operation for a cure. The reason why necrosis of the rib occurs is that the open ends of the rib are exposed, are constantly being bathed in pus and are involved by continuity of the infection. Heretofore, no means has been devised of sealing up these open ends to prevent contamination, thus closing up an avenue of infection that gives rise to a general sepsis. The operation is very simple and takes only a minute more than the usual procedure. It entirely removes the four per cent chance of a rib necrosis and reoperation, and may save months in convalescence. The bone wax seals up the end of the open rib, and the muscle flap gives added protection.

PECULIAR REACTIONS BETWEEN FIFTH AND SEVENTH CRANIAL NERVES

Paralysis of the muscles of expression of the same side of the face is a not uncommon sequel of section of the root of the fifth cranial nerve, also of ganglionectomy as practiced for the cure of major trigeminal neuralgia and it has occurred frequently as a sequel of deep alcohol injections. Although sometimes this paralysis is very marked, it fortunately seems to be always temporary; its occurrence, therefore, from a practical standpoint, is a matter not worth much consideration. W. T. Coughlin, St. Louis (Jr. A. M. A., Dec. 15, 1923) reports two cases in which there was spasm of the facial muscle of the same side following section of the sensory root only of the fifth nerve.

REPAIR IN HYDRONEPHROSIS

The matter of repair in hydronephrosis with reference particularly to early and late changes after relief of brief obstructions when opposite kidney is not disturbed was studied experimentally by Frank Hinman, San Francsico, and O. W. Butler, Los Angeles (Jr. A. M. A. Dec. 15, 1923). The result of this work is summarized as follows: A hydronephrosis of seven days' duration from total ureteral obstruction returns anatomically and functionally to about normal. The recovery is more prompt if the opposite kidney is removed or so diseased that it is incapable of complete function. The recovery of a hydronephrosis of from fourteen to twenty-eight days duration requires the stimulus of compulsory function which in the longer period must be gradually and not suddenly applied. If left in partnership with the normal kidney, which meanwhile has undergone compensatory hypertrophy, atrophy will replace the initial repair, an atrophy of the nature of a disuse atrophy, even in the case of hydronephrosis of shorter duration. There is considerable initial recovery of function and repair hypertrophy of a kidney after relief up to twenty-eight days of total obstruction. This recovery, even after shorter periods of obstruction (fourteen days), is tem-

porary if the healthy kidney is undisturbed, and in the course of several months an atrophy of the nature of a disuse atrophy replaces it.

FASCIAS OF THE UROGENITAL TRIANGLE

Miley B. Wesson, San Francisco (Jr. A. M. A., Dec. 15, 1923), confined his investigation to the male perineum. The gross material used consisted of frozen cross sections and of dissections of preserved and fresh cadavers, some of which were first injected with colored fluids through an endoscope, thereby simulating extravasations of urine from a ruptured urethra. In addition, serial sections of human embryos of various stages of development were studied. A glass model was constructed of the pelvis of a term fetus cut transversely in sections 100 microns thick (specimen 2409, Carnegie Institute of Embryology). With the aid of an Edinger projection apparatus the important structures were traced directly on glass plates by means of various colored inks. Distortion of the model was prevented by keeping the magnification in proportion to the ratio between the thickness of the sections and that of the plates. The glass plates were then stacked, divided into packs about four inches thick, bound firmly with adhesive plaster, and mounted on a frame with electric lights behind, so as to give a transparent presentation of the entire region. Wesson states that Buck's fascia has a definite given position as described by him and which is borne out by embryologic studies and by extravasation experiments. Colles' fascia has certain definite extensions anterior to the suspensory ligament, which fact also is demonstrable by embryologic and experimental study. Colles' fascia in the penis bears the same relationship to Buck's fascia that the posterior layer of Denonvillier's fascia does to the anterior type. The urogenital diaphragm occurs subsequent to the appearance of the urethra, muscles, blood vessels and pelvic viscera. The pelvic and perineal fascia are made up of mesenchymal extension from the blood vessels and viscera and from the aponeurotic sheaths of the muscles, and are formed from a condensation of primarily loose undifferentiated tissue. Denonvillier's fascia is formed by a condensation of mesenchyme tissue, and not by a fusion of layers of fetal peritoneum. The urogenial fascia has not the same density early in life that it later acquires, with the assumption of the upright position and the consequent strain put on it.

A SALIVARY INDEX TO RENAL FUNCTION

About 900 estimations of the salivary urea index were made by Philip S. Hench and Martha Aldrich, Rochester, Minn. (Jr. A. M. A. Dec. 15, 1923), in a series of about 600 persons, to determine (1) the variations in the salivary urea index in normal persons, and (2) the variations in the salivary urea index in patients in whom urea retention was evidenced by an increased blood urea. The normal salivary urea index was determined from saliva collected from 442 persons whose renal function was considered normal. Eighty-two per cent

gave an index value of from 30 to 50 (that is from 30 to 50 cc. of 5 per cent mercuric chlorid for each 100 cc. saliva), while 18 per cent crept above the value of 50 to values which later were proved to be generally an indication of beginning retention. This overlapping area was materially reduced by using the second specimen of a fractional salivary collection. Thus, 92 per cent of 190 estimations made on the second specimen of fractionated salivary collections gave an index between 30 and 50. This explains the necessity for using the fractional method of collection of saliva. Several cases of prolonged retention were studied over long periods of time. Seven hundred and four determinations of blood urea and the salivary urea index were made in 493 persons. The two tests were usually taken within an hour, and never more than a few hours apart. The urea levels, as indicated by the blood urea, were between 12 and 300 mg. The salivary urea index increased directly with the degree of urea retention. The probable relationship between the salivary urea index and the blood urea may be expressed by a formula which is given to assist in the clinical interpretation of the salivary urea index; but it is sufficient to know that high salivary urea indexes denote definite renal insufficiency. The results of this series indicate that when a salivary urea index below 50 is obtained, there is, in nearly 90 per cent of the cases, no urea retention in the body. There is a 10 per cent possibility that mild retention exists, but not in any case does it exceed the blood urea value of 60 mg. When a salivary urea index above 50 is obtained, there is in 91 per cent of cases definite urea retention, and only a 9 per cent possibility that there is no retention. The estimation of the salivary urea index is advocated as a substitute for certain blood urea determinations. In doubtful cases it may be controlled by the blood urea.

HEREDITARY HEMOPTYSIS

For seven years Emanuel Libman and Reuben Ottenberg, New York (Jr. A. M. A., Dec. 15, 1923), have had under observation a family of bleeders. In this family, seven persons presented almost identical histories of repeated profuse hemoptyses beginning about puberty or in early adult life and occurring at intervals throughout life. The heredity of the disease in this family is not sex-limited. The disease occurs in and is transmitted by females as well as by males. The hemorrhages occur only at or after the age of puberty, the earliest hemorrhage recorded in any individual being at the age of 12 years. None of the hemorrhages have been fatal. Tuberculosis has been excluded as the cause of the hemorrhage. The only comparable disease is the "idiopathic family hematuria" described by Apert, which has been observed in two families. The condition seems not to skip generations.

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THE MACEDONIAN CALL

Read before the Barbour-Randolph-Tucker Med. Soc., Jan. 24, 1924.

By J. C. IRONS, M.D., Dartmoor, W. Va.

Past experiences and future probabilities should be sufficient to guide us in the way of prudent action. Already the call to prepare for impending danger has come from our legislative committee, at Charleston, and we shall be recreant to our duty, if we do not heartily respond. It seems an inherent tendency of our people, and especially of the majority of the medical profession, to refrain from acting on great problems, and thus leave to a faithful few, the responsibility for results.

The medical profession has always had a dual problem to perform—primarily we are expected to employ the best methods to relieve suffering, heal diseases, and repair injuries—but we are learning more and more, that possibly a greater good can be accomplished by preventative measures, rather than the "healing art." We are constantly confronted by what may become a public menace and we can be, as we have been, of great service, in educating the people, securing necessary legislation, and devising protective means to protect the people and save life.

The great things, of general helpfulness, which our profession alone has accomplished and thus preventing sickness, saving life, and making whole sections habitable, where once was only black despair and death, is a known fact.

Need I remind you of some of the most beneficial preventative measures, freely dedicated to life saving as the result of medical research and life giving toil? Smallpox, once the scourge of nations, has become a mild disease and may become a thing of history only. Diphtheria, with its death dealing role of thousands, has been robbed of its terrors. Typhoid Fever, once

especially a dread in army life, as well as in communities, is now largely under control, and may be exterminated. Yellow fever, the deadly destroyer of life in whole sections, rendering fertile portions of our country uninhabitable, is now under partial control, and these dreaded sections are becoming health resorts. These alone should be enough to commend the medical profession — but we must not stop here. May I not simply call attention to a few other dread maladies, which have fallen under medical research? Rabies, diabetes and syphilis are largely robbed of their terrors, not to mention great advance in knowledge and treatment of tuberculosis and cancer, as well as many others.

While medical science has much to be proud of, we should not fail to mention the wonderful advance in surgical science. Many conditions once thought incurable are now yielding to applied surgery Organs of the body are being removed when diseased, and thus becoming destructive—operations once thought impossible are now performed with cunning safety by skillful hands.

We must not stop here, and in our attempt to enumerate the things for which we should receive commendation, the medical profession alone is responsible for practically all safe and sane health legislation thus far enacted. Much of the legislation has been enacted too, over the protests and opposition of those now enjoying their benefits, and much better laws would have been secured but for those opposing. This course is peculiarly provoking when we know that the most of our opposition is the result of ignorance, selfishness or prejudice. It is now the rule that no measure, however beneficial or necessary it may be, if espoused by our profession it has the opposition of a certain class of mendicants or hirelings, so numerous at our State Capitol.

In view of these facts we should expect hearty cooperation, rather than abusive opposition. Surely the American people expect deception and humbuggery no less now than they did in the days of P. T. Barnum, and the greater the "humbug" seemingly the larger his following. We are reminded that at the meeting of our last legislature one class of deceivers, commonly known as chiropractors, sought to have passed a most unjust and menacing law, licensing this class on an equal footing with the medical profession. Objectionable as this law was it passed the lower house, and came within three votes of passing the Senate, and but for the strenuous opposition of a few, would have passed both houses. We claim this bill is unjust in that for the medical practitioner the law requires college education, and four years' course in a reputable medical college, hospital experience, and on top of this, a most rigid examination before a State Health Board—while the chiropractor, with no required educational attainments, no reputable college preparation, only that he can pass examinations on so-called "adjustments," with no knowledge of diseases or their cause or nature, or dangers incident thereto. To license under such circumstances would not only be a travesty on justice, but would be a public menace, in that with no knowledge of disease or its danger,

the patient may delay any proper or helpful measure, till hope of successful aid is past.

It is reasonably certain that the apparent nearness to success will embolden these self seekers to a renewal and more strenuous effort to pass this or a similar bill at the next legislature. This being true, it seems to me our duty is imperatively obvious. Is it possible that we can be reconciled to a mere passive resistance where such stupendous possibilities are impending? We are organized into County, State and National Societies for the advancement of Medical Science. Shall we take our ease when the very principles for which we stand are being menaced?

There are estimated to be over two thousand licensed medical practitioners in this State, and if we could secure earnest co-operation, we could so educate the public as to dissipate the threatened danger. Notwithstanding the opposition of all the various "kinds, quacks, shysters, and grafters, who play upon the ignorance of those sick and suffering, solely for the purpose of obtaining their money, regardless of the consequence to the afflicted." "Those arrayed against the regular profession do all in their power to discredit the regular physician in the eyes of the public." We are accused of all kinds and character of motives, even when we are acting solely for public good, with no possible personal gain. The most inexplainable characteristic trait of humanity is man's ingratitude to man and God. These evident facts and conditions confront us, and it is for us to decide whether we will heed the call that comes to us from our legislative committee, and take timely action, or do as we usually have done, wait till the enemy is strongly entrenched and ready to open on us from advantageous positions. Fore-warned we should be fore-armed, but will we be organized and ready for the conflict? This is my excuse for this paper. Hitherto we have shown indifference to this matter at the time when work could be most effective. We have been too optimistic, over-confident, failing to appreciate the strength of the opposition till the strength is revealed.

Now is the time to prepare for the contest. Should we not be more active in seeking the selection of men or women for legislative positions who can appreciate the importance of health legislation, and who can be trusted to work and vote for all proper health measures and legislation pertaining thereto? Usually our most effective work can be done in the primaries. Shall we not organize and now see that a concrete effort be made to protect a misled and misinformed public? I plead with you that prompt action be taken. A united effort will bring victory; divided, we will fall. Act now.

HEMATURIA

Read at the November Meeting of the Monongahela County Medical Society.

By DR. T. JUDD McBEE, Morgantown, W. Va.

After the reading of the paper Dr. McBee showed several lantern slides of pathological conditions causing hematuria.

The general tendency of modern medicine marks a growing reaction against the use of the words essential and idiopathic. Therefore

there is no essential or idiopathic hematuria. It is far better to say hematuria of an unknown origin.

In 1901 it was pointed out by Joseph Israel that nephritis exists in advanced stages without the usual urinary findings. That we could have unilateral nephritis with pain and hemorrhage, that we could have unilateral pain when bilateral nephritis was present. It is this kind of cases that belong to the border zone between medicine and surgery. Israel made such good use of his accurate observations and sound deductions which led to conclusions which have been scarcely questioned in the ensuing twenty years. It was he who said we have no essential or idopathic hematuria.

Among the causes of hematuria we find them as follows: Neoplasm, tuberculosis, calculus, trauma, urethral and ureteral stricture, focal infections, acute inflammations, nephritis, parasites, cardio vascular diseases, syphilis, drugs, movable kidney, prostatic hypertrophy, cystitis cysticia, hydronephrosis, aneurism renal artery, dilated veins, change of blood pressure in papilla, foreign bodies and exposure.

Blood in urine is often found after physical exercise, exposure to cold and fatigue in athletes and soldiers. I have a case in a man thirty-six years old who has marked hematuria after exercise accompanied by exposure to cold with no findings in the urinary tract. It is preceded by pain in the back which is relieved by the passing of blood.

Dilated veins in the papilla may cause marked hematuria for a long period of time which can only be diagnosed by exclusion and exploration. Some of these kidneys after removal show many areas of infarction.

Heightened intrarenal pressure due to rigidity of the capsule is one of the rarer causes of hematuria.

Hunner has pointed out that focal infection, pressure and trauma causes ureteral stricture with the accompanying hematuria. He reports fourteen cases of ureteral stricture in the female and three in the male, the latter in consultation, causing hemorrhage. All of these were cured or greatly improved by dilation and removal of the focal infection. He reports a case that continued to bleed after repeated dilations of ureteral strictures and a double nephrotomy. Tonsilectomy was performed with the result that the bleeding ceased. This case shows where our focal infection comes in. Several cases have been reported with appendicitis as the focal infection.

Cystitis causing hematuria is accompanied with pain, is terminal and the urine having a smoky appearance. The urine is almost invariably alkaline. Often the history of the case is sufficient aid to give us the cause.

I have had several cases of acute posterior urethritis of specific origin involving both sphincters and the trigone that had almost continuous frequency with marked bleeding and tenesmus. In two cases tenesmus was so severe that it brought on protruding hemorrhoids without pervious history of hemorrhoids. I have seen cases like this with suicidal tendencies. The annoyance and discomfort in these patients would certainly make them think of most anything.

Cystitis cystica and granuloca (two entirely independent patho-

logical conditions) are perhaps due to chronic inflammations. They may occur in the bladder, ureter and kidney. The symptoms are often quite marked and they may give rise to long continued hematuria.

Tubercular cystitis or tuberculosis of any portion of the urinary tract causing hematuria is not influenced by rest or exercise and never profuse. It has all the symptoms of other cystitis with a decided tendency to chronicity. Frequency and microscopic hematuria are the earliest symptoms. A large percent of all cases of frequency in women, and we have many, are due to tuberculosis. Frequency begins to be noticed both by day and night. Advanced cases almost constant frequency day and night and about the only cystitis that is not relieved on lying down. Pain in the beginning is not great but becomes more and more intense. It begins when attempt is made to hold the urine overtime or on the beginning of urination and increases in severity as the last drop is passed. In the latter stages the pain and frequency is continuous in spite of the free use of anodynes. Any continuous cystitis is suspicious of tuberculosis. Urine of tubercular cystitis is almost invariably acid and about the only kind of a cystitis that is. Cystoscope and detection of the tubercle bacilli in the urine and inoculation is the only means of absolute determination from other forms of cystitis.

Tuberculosis of the ureters and kidneys causes hematuria and presents much the same line of symptoms as of the bladder and is diagnosed by cystoscope, catherization, lavage of the kidney, functional and microscopic tests.

Tuberculosis of any part of the urinary or genital tract is more prone to involve the other parts of same tracts than that of tuberculosis of any other part of the body.

The most prominent and frequently the first and only symptom of vesical tumor is hematuria. The sudden appearance of blood in the urine without other symptoms, especially profuse, should at once arouse suspicion and call for investivation. Do not be thrown off by the age of the patient as the study of cancer in recent years has taught us that it is fairly common in the young. Not infrequently patients are found with history of blood in the urine many years previous, then a lapse of years during which no blood was noticed and finally on the reappearing of the hematuria a tumor was discovered which is hopelessly inoperable. The degree of hematuria is no indication of the size of the growth or whether or not it is malignant or non-malignant. A very tiny benign papilloma may bleed continuously and profusely. The bleeding generally speaking is greater in the non-malignant due to the villous shape of the growth. The characteristic hemorrhage of a neoplasm, whether renal or vesical, begins without cause or warning, continues copious and painless, unaffected by rest, diet or medication, ceases as it begins, without apparent rhyme or reason. Its cessation may leave the urine entirely normal and the patient lulled into a false sense of security by what he considers his happy escape from a perilous condition. The greatest factor in a patient's life of an untreated bladder tumor is that all bladder tumors grow slowly. This is so in a

lesser degree of tumors of the kidney.

Too often patients are told by their physician to pay no attention to occasional blood in the urine because it was unaccompanied by pain or other serious symptoms. In fact in some cases with the worst prognosis the blood is not accompanied by pain. Happily the profession is now more alive to the grave possibility of hematuria, and the laity has been so well reached by popular diffusion of knowledge concerning cancer that we are seeing patients with cancers of the bladder and malignant tumors of the kidneys in the early stages, when fulgeration, irradiation or operation are not infrequently followed by cure.

Stone in the bladder produces pain and hematuria. First we want to bear in mind that this pain and bleeding is due to traumatism of the stone. The bleeding comes at the end of urination when the inflamed bladder wall contracts down upon the foreign body producing the emission of blood with pain and tenesmus.

Renal calculus is the most frequent and the most painful of surgical diseases of the kidney. Pain is present in eighty percent; being severe enough to cause renal colic in about forty-four percent. The pain of renal colic is familiar to all —begins in the region of the kidney radiating down the course of the urinary tract of the side affected. The pain is not always characteristic. The pain may occasionally be felt only in the "stomach" and associated with vomiting. I know of two cases of kidney stone that were treated for years for "stomach trouble" and when diagnosed the kidneys were completely destroyed as far as function was concerned and the patients died soon after removal. Albumin is present in 85% of cases. Hematuria occurs in about 40% and pus in about the same percent. The bleeding is usually made worse by exercise though the pain is not. The blood is the most profuse at the time of the colic or soon thereafter. Blood can be found in small amounts in the urine weekly examined, so we can say it is a constant symptom. Don't be misled when finding blood in the urine that have no calculus because there is no history of pain. About 20% have no history of pain. It may take repeated examinations to tell whether the blood is from stone or tuberculosis of ureter or kidney.

In this connection we will consider ureteral calculus. They have about all the symptoms with accompanying severity as in renal calculus only in a different region and usually not so long in abating under influence of medicinal treatment. Pain is present in 98% of cases.

We have four principal methods of diagnosis of calculus as follows: History, urine examination, cystoscope and ureteral catheters and X-ray. Of these the most unreliable is the X-ray. As for lying, it sure works overtime in calculi. When you can see blood and calculi coming out of the ureteral meatus, and run a wax-tipped catheter into the stone, there is a feeling of security in diagnosis that you never get with the X-ray. It is true that some formations of stone are not shown by the X-ray. It is also true that many good sized stones shown are not to be found on operation. There is no other class of cases in any

branch of medicine that will so readily consent to operation as stone in the urethra, bladder, ureters or kidney, and likewise with greater relief.

In traumatic injuries to the kidney, hematuria is present in 90 to 95 percent. When not present it is not safe to think there is no injury as the capsule may be ruptured or clot in pelvis or ureter torn across.

Traumatisms of the ureters, bladder or urethra are due to external violence or careless instrumentation. In these cases hematuria is present as an early symptom. The history and usual light carrying instruments are usually all that is necessary to diagnose the source of the bleeding.

Exeptionally hematuria may be the most pronounced symptom of stricture of the urethra due to an ulcerated spot. The blood continues to drop after the close of urination. Stone in the urethra causing hemorrhage is easily diagnosed, the most simple method being the click from a metal sound.

When benign prostatic hypertrophy is accompanied by hematuria we should first look for traumatism due to instrumentation followed by infection or intercurrent bleeding from some other source. This being eliminated, look for neoplasm with cystoscope or rectal palpation. Richard Cabot has said that benign prostatic hypertrophy causes hematuria in a large percent of cases. But I am inclined to think he meant those cases where the urine becomes infected with the accompanying cystitis. I am inclined to think that benign prostatic hypertrophy uncomplicated and not infected, does not produce hematuria.

Syphilis presents itself here as it does in all other maladies of the body and is always to be suspected. Hematuria is the predominating symptom of syphilis of the bladder and is usually of the tertiary type. I have had two cases, both in females. It is usually without pain and is often diffuse. They occur as simple or multiple ulcers surrounded by a dark red zone. Some are tumor-like masses with beefy appearance. It is not easily to distinguish them from carcinoma by appearance only. The hemorrhage of syphilitic glomerular nephritis can be diagnosed by the associated symptoms of the disease together with the Wassermann reaction.

In preparing a short paper I found it was not possible to give much space to only the three most frequent and important causes of hematuria: neoplasm, tuberculosis and focal infection. Any one of these treated as it should be would be a long paper in itself. Some of the rarer causes I have done nothing more than name, knowing that we are not generally interested in the exceptional possibilities of medicine.

In conclusion, any statement made by a patient that they have seen blood in the urine should be considered a grave pathological condition until proven otherwise. A physician's road is much smoother who considers all ailments seriously until proven not to be otherwise than taking the seemingly easier road. Blood in the urine reported by the patient is of much more significance than discovering it yourself because what you may discover is usually microscopic and generally due to drugs, acute diseases, chronic conditions or focal infec-

tions. In the class of cases I have tried to describe it is not wise to come to a negative or a positive conclusion until repeated examinations are made in obscure cases. Should a patient come to a physician with the statement that he had recently lost twenty-five pounds in weight, you would be much concerned to find out the cause. Probably too late for by that time their malady is so deep seated as to be beyond medical or surgical relief. On the other hand a patient may come with the very picture of health and say he had passed blood in the urine. These are the patients that can be the most benefitted and in most cases cured. The time has long since passed when we learned that the only cure for tuberculosis and neoplasms were in the early stages.

Elix Buchu, Juniper and Potassium acetate has no more place in treating hematuria than it has in pneumonia.

I would like to repeat that blood in the urine is a pathological condition. The blood the patient reports to you is far more important than that you discover yourself.

UROLOGICAL DIAGNOSIS FROM THE STANDPOINT OF THE GENERAL PRACTITIONER

Read before the December, 1923, Meeting of Mercer County Med. Soc., at Bluefield, W. Va.

By LAWRENCE T. PRICE, M.D.
Richmond, Va.

A good many patients have come to me for urological examination in whom it has seemed probable that a tentative or complete diagnosis could have been made by the family doctor, with proper use of the methods and information at his command. The object of this paper is to emphasize the value of some of the simple methods, and also to call attention to the fact that a careful history combined with local examination may bring out many facts which would ordinarily be overlooked.

That it is to the interest of the general practitioner to obtain as much information as possible toward the diagnosis of these cases, will be readily admitted. If his diagnosis is positive, it may be possible for him to institute his own treatment and thus save his patient the time and expense of a journey to a specialist. If his diagnosis is tentative, he may direct his case more intelligently and the more information he can give his patient as to the nature of the trouble the greater is apt to be the respect accorded to his knowledge.

Many of the points brought out are not new and some of them have been included in the courses at medical schools. The seeming unfamiliarity on the part of many members of the general profession with certain essential urological facts, has been deemed sufficient justification for discussing the subject in some detail.

It should be remembered that a discharge from the meatus of the urethra is not always gonorrhea, that every case of frequent and painful urination is not due to cystitis, and that a hematuria may originate elsewhere than in the kidney. Subjective and objective symptoms apparently of serious import may be due to some simple condition which can be easily relieved.

On the first examination of a patient presenting urological symptoms, it is of primary importance to have a careful and detailed history, as it is only in this way that a clear conception of the case may be obtained. Information should elicited as to the following details: (1) time and circumstance of first symptoms, (2) predisposing causes, (3) history of traumatism, (4) previous attacks of a similar nature, (5) treatment already instituted. The patient's own idea as to the nature of his trouble should be noted, but the physician should draw conclusions only after painstaking interrogation followed by careful physical examination. For instance, a patient may present himself for treatment for a case of gonorrhea and his own observation of his malady may seem to corroborate the diagnosis; the presence of a balano-postitis or a chancre or chancroid of the meatus or urethra may be the cause of the purulent discharge. If the first condition be present, the pus, together with inability to retract the prepuce, and the history of omission of bathing for several days will establish the diagnosis without the aid of a microscope. If a chancre be present, the diagnosis may be established by the time of incubation together with the presence of a localized area of induration. The period of incubation in chancroid is the same as in gonorrhea, but the character of the discharge is different, and palpation will reveal the absence of an infiltration which does not occur in chancroid. It may be noted, however, that it has been my experience to observe the appearance of a chancre of the meatus during the treatment of gonorrhea. This observation was fortunate for the patient, in that treatment for the specific condition was begun at an unusually early period of the disease.

A patient with an apparent gonorrhea may have instead an aseptic urethritis or a non-specific urethritis. Here the history of exposure to infection, excessive use of alcohol or sexual over-indulgence is very helpful in establishing the diagnosis. It should be mentioned that the use of the microscope is more definitely conclusive in differentiating these latter conditions than the history alone, as it will demonstrate the presence of gonococci in the discharge, the presence of microorganisms other than gonococci, or the absence of bacteria.

The prostatic urethra, the veru montanum and the neck of the bladder contain highly developed sensory nerve terminals in their mucous membrane and are very vascular. These localities, therefore, are extremely sensitive and may present symptoms due to causes more or less remote. For example, a pyogenic infection in the kidney pelvis will produce a secondary bladder infection with symptoms at the bladder neck; there being no subjective evidence to indicate the location of the primary lesion. The bladder acts as a reservoir, giving an opportunity to the organisms to attack the tissues.

In the urological examination of male patients I use the Thompson three glass test, as a routine measure. For this simple test the conical urine sedimentation glass is desirable and may be obtained at any drug store. Ordinary drinking glasses or white glass bottles may be used, however. The patient

voids the entire bladder contents into the three glasses, making the amounts as nearly equal as possible. Glass number one represents the first urine, glass number two the middle urine, and glass number three the last.

In an acute gonorrhea, the urethra is washed clean by the first urine, therefore, the first glass will be cloudy and the second and third clear. In chronic anterior-posterior gonorrhea and prostatic infections, the first glass will be cloudy, the second clear, and the third cloudy. This is because the pus from the urethra appears in the first urine, while at the end of urination the perineal muscles contract, causing expulsion of the infected contents of the prostate and vesicles with resulting cloudiness of the third glass. In the presence of a vesical calculus causing bladder infection, the first glass and the second will be relatively clear and the third cloudy or bloody, owing to the fact that by sedimentation the blood or pus has accumulated in the lowest part of the bladder. In kidney infections the infectious products have become thoroughly mixed with the urine so that all three glasses will appear cloudy.

Three cases will be cited to illustrate the value of the above test.

Case 1. Patient sent for examination on account of the presence of hematuria. The doctor who referred the case wrote a letter indicating his belief that a pathological condition of the kidney was present. The three glass test showed almost pure blood in the first glass, second and third clear. Urethroscopic examination revealed a very vascular papilloma in the pendulous urethra, which was removed by cauterization. The hematuria immediately came to an end.

Case 2. Patient referred for a protracted and obstinate case of gonorrhea with continued meatal discharge. All three glasses very cloudy. Enormous amount of pus and many bacteria found under microscope. Cystoscopic examination with urethral catheterization revealed marked unilateral pyelitis.

Case 3. A patient came under my observation with the following history: Five years before he had had a swelling in one epididymis with apparent abscess formation. A diagnosis of tuberculosis of the epididymis and testicle was made by a surgeon whom he consulted, and a radical operation was done for removal of the offending organs. Three years later a similar condition developed on the opposite side and the remaining testicle and epididymis were removed by a second surgeon. At the time I saw him, all three glasses of the voided urine were cloudy, which caused the opinion that kidney pathology was present. Cystoscopic examination revealed a well developed tuberculous infection of one kidney and of the bladder. If this simple test had been done at the onset and the obvious deduction made, a complete urological examination would have revealed the primary condition and the double castration would probably have been avoided. At least, he might probably have been saved the second operation.

Urine which is cloudy in appearance does not necessarily contain pus. Alkaline urine may be heavy in phosphates, especially after the ingestion of albuminous food, e. g., eggs or milk. A few drops of acetic acid will cause such urine to become

perfectly clear. Phosphatic urine sometimes causes frequency of urination and burning, which may simulate a more serious condition. The internal administration of sodium acid phosphate will acidify the urine, it will become clear and the symptoms will come to an end.

As is well known, the old method of diagnosis of stone in the bladder was the attempt to elicit a grating sensation upon passage of a sound. This procedure seems to have been forgotten or neglected, as many cases referred for diagnosis turn out to be due to vesical calculus. A sound, passed with the bladder partly full of urine or water, should detect a stone unless it be encysted. This is not a difficult procedure in the hands of the general practitioner and the method possesses value. Of course, the size and number of stones can be determined only by cystoscopic or X-ray examination. Correct diagnosis of acute pain in the right side of the abdomen may be a most difficult problem, especially in the female. However, the ability to use a microscope and to make a blood count will enable one to form a fairly clear idea as to the possibility of a right renal or urethral calculus being the cause of the symptoms. The absence of leucocytosis plus the characteristic urinary findings will be overwhelmingly in favor of the presence of a calculus, and the history and symptoms will, of course, be of value proportionate to the completeness of the clinical picture. A hypodermic of morphine administered at home may thus be the only immediate treatment necessary and the consideration of removal to a hospital for a possible emergency surgical operation will be eliminated. If the doctor himself is not equipped to do the microscopical work, he may in the present day often find a nearby physician or technician who can help him out.

Digital rectal examination will often establish a diagnosis of hypertrophied, adenomatous or malignant prostate. Acute prostatitis or vesiculitis may likewse be discovered by this method. The hypertrophied or adenomatous prostate is invariably symmetrical and its contour is smooth; it is not hard to the finger and not tender, but is distinctly dense. Acute prostatitis presents somewhat similar palpatory findings but is softer and extremely tender on pressure. A malignant prostate may be normal in size or enlarged, and can be felt to be very hard and irregularly nodular. It is not usually symmetrical owing to unequal distribution of the involvement. There is no pain on pressure, as a rule. In vesiculitis, a soft nodular, fluctuating mass, very painful on pressure, may be made out adjacent to either of the upper corners of the prostate. The latter may be normal or acutely inflamed. Massaged secretions from acute prostatitis or vesiculitis examined microscopically or culturally will show the character of the infection present and thus treatment will be indicated. Prostatitis and vesiculitis occur in the young and middle aged adult; hypertrophy and malignancy are seen in patients past middle age. It is obvious that the points brought out in this paper have in no way been intended to cover the whole subject or urological diagnosis. Many cases will require cystoscopic or X-ray examination, or both, with special urinary and bacterial studies, to work them

out satisfactorily. I would reiterate that my idea has been to be of assistance to the general practitioner by taking up some points believed to be of real value to him. It is hoped that this object has been to some extent fulfilled.

THE PREOPERATIVE AND POSTOPERATIVE CARE OF PATIENTS UNDERGOING PROSTATECTOMY

EDWARD LESTER MERRITT, M.D.,
Urologist to the Truesdale Clinic and Hospital, Fall River, Mass.

During the past few years there has been a very marked decrease in the mortality of prostatectomy. This improvement is not because of any marked change in the technique of the operation itself but without doubt is a result of the preoperative and postoperative care now given in most urological clinics. The preoperative care, although differing widely in the various hospitals and clinics, has the same goal in view, namely, the relief of renal insufficiency and the improvement of the patient's general condition. Renal insufficiency is in these cases the direct result of back pressure upon the kidney parenchyma. In the majority of cases the kidneys do not manifest organic disease and marked improvement of function follows simple drainage of the bladder.

The indications for prostatectomy are based on the pathological conditions present in the gland as manifested by symptoms and signs relative to urinary obstruction.

Undoubtedly one of the earliest symptoms is frequency of urination and this may persist for months and even years without any other apparent trouble. Gradually, however, the act of micturition becomes more difficult and there may be dribbling of urine. Because of the continued nocturia and loss of sleep, the patient's general condition becomes progressively worse. The enlargement of the prostate, acting as a dam, results in constant residual urine which, stagnating in the bladder, gives rise to cystitis. The bladder, because of the retention of urine, loses its elasticity and becomes a flabby bag without muscle tone. The retained urine, following the path of least resistance, backs up in the renal pelvis. From this point on the patient's condition gradually becomes worse. There is a decrease in kidney function as a result of the mechanical obstruction. Constitutional symptoms then appear. In many of these cases there is a rapid loss of appetite, strength and weight. This is especially marked when there is pus in the urine. Inasmuch as it is only a question of time before the urine does become infected, one can readily understand the value of early operation. Prostatectomy while the patient's general condition is good and the urine aseptic, is of slight gravity compared with the same operation resorted to when the condition of the patient approaches uremia.

We feel that these patients should be subjected to the minimum degree of stress in any investigation and for this reason it has not been our practice to cystoscope all our prostatic patients. When, however, we have reason to believe there is some other existing vesical or renal condition of importance, the cystoscope is used in the examination. Suprapubic cystotomy with

the use of the index finger to explore the bladder can effectively supplant the cystoscope in determining the presence of vesical calculi or malignancy.

A routine rectal examination is made with the index finger. Occasionally a sound or metal prostatic catheter is employed to determine the amount of enlargement either in the direction of the bladder or rectum. We feel that from four to six ounces of residual urine combined with frequency and urgency of marked degree afford good grounds for prostatectomy.

Most of our cases, when admitted to the hospital, actually had acute retention of urine. It is, of course, unfortunate that patients should ignore the need of treatment and operative interference when the chances for cure are favorable. Delay in advising operation I believe to be due to prejudice many physicians in general practice have against prostatectomy. For the most part this is founded upon sad experiences with methods which are now obsolete.

However, it is our belief that every patient, regardless of general condition should be given his chance. If, following bladder drainage the renal function remains low and the non-protein nitrogen content in the blood remains high, the patient can be sent home and is most certainly no worse off than before. Senility is not in itself a contraindication to operation and several of our patients were over eighty years of age and have reacted exceptionally well following operation. Appearances are not always to be relied upon. Blood chemistry and renal function tests often yield surprises.

Probably preoperative bladder drainage is the greatest advance that has been made in prostatic surgery. At least seventy-five percent of the patients presenting themselves for prostatectomy have infection of the bladder. Drainage, either by retention catheter or suprapubic cystotomy relieves this to a marked degree. Water should be given very freely. Ten to fifteen glasses a day is the minimum. It is our custom to give hexamethylenamine and acid sodium phosphate in fairly large doses.

Once drainage is established, a patient should not be kept in bed. He should be up and about as much as possible. It has been found that elderly patients are affected adversely if kept in bed too long.

Usually within a week the renal function will improve markedly and the non-protein nitrogen content in the blood decrease to a great degree. The bowels should be kept open. Simple enemas are of value because of the water absorption. Digitalis is a valuable therapeutic agent, not only because most of these men have cardiac disease, but because of its diuretic action. It must be borne in mind that prostatic patients are, for the most part, greatly dehydrated and the fluid intake is a very important item.

It is not my intention in this paper to discuss the relative advantages of a perineal or suprapubic operation. The fact that the suprapubic route is now almost invariably the operation of choice, speaks for itself. It is the method of choice used in our hospital and we believe that with it, we secure better results.

Regarding anesthesia, we use ether, nitrous oxide, spinal or sa-

cral. Most men today favor spinal or sacral anesthesia. Under these last two methods with the patient in extreme Trendelenburg position, the operation can be done under direct vision.

Following removal of the prostate it is our custom to insert a suprapubic rubber drainage tube which is taken out at the end of 24 to 36 hours. After the tube is removed we have found that daily irrigation of the wound with boric acid solution aids materially in the process of repair. It is a distinct advantage at this time to keep the urine acid to litmus. At the end of three or four days, provided the temperature is normal, the patient should sit up daily. Even though the temperature is slightly elevated he should be propped up in bed. The forcing of water should be resumed just as soon as the patient recovers from the shock of operation.

We find it essential also, that these patients, during their stay in the hospital, be kept happy and contented. Most of them are entering a hospital for the first time and everything appears strange. They have their particular whims and peculiarities. The nurse most to be desired is the one who, by observation and adroit questioning, learns what these wishes are. One of our patients for example had relished a particular brand of bacon for years; another for an equally long period had had a cup of hot malted milk in the early morning hours, and still another had found prunes indispensable at home. Things trivial but essential to their well-being. They also miss the family circle much more than a younger person and very soon become homesick. The less one upsets their general routine of life the more speedy the convalescence. Much of this may impress the reader as unnecessary and a waste of time. However, from constant personal contact with these patients I have observed that keeping up their general morale is one of the most important items incidental to operation.

In conclusion I believe:

(1) That routine preliminary bladder drainage is required if one is to secure the best results in prostatic surgery.

(2) That operation cannot be undertaken without considerable risk when the renal function test remains constantly lower than 15% and the non-protein nitrogen content in the blood higher than 60 mgm. per 100 c. c.

(3) More time than usual must be spent in personal contact with these patients in order to stimulate their morale and to have them sustain an attitude of optimism.

(4) Fluid intake must be in considerable quantity. This is necessary even if it has to be given subcutaneously or intravenously.

(5) Operation for enlarged prostate should be undertaken early before the development of infection and associated symptoms.

THE PRESENT STATUS OF BENZYL THERAPY

Read before the Kanawha County Medical Society,, November 23, 1923.

By MR. PAUL SEYDEL, Nitrto, W. Va.

The honor of introducing the benzyl compounds into therapeutic practice belongs to Dr. David I. Macht, of Johns Hopkins Hospital,

Baltimore, and the medical profession has not been slow to take advantage of his valuable discoveries, the interest extending to Europe, as shown by the papers of Cheinisse[1] in France and Messner[2] in Germany, both of whom present resumes of Macht's work. In the course of a study of the different alkaloids of opium, Macht,[3,4,5,8] noticed that morphine and the principal group had a very different action on various organs and smooth muscle structures from that of the minor group, whose principal representative is papaverin. While the former group of alkaloids increase the tonus and the contractions of the vas deferens, seminal vesicles and ejaculatory tracts, gall bladder, ureter, the latter group decreases the tonus and inhibits the contractions. In the case of the use of the total group of opium alkaloids, it is the latter effect which predominates.

Turning to the chemistry of the alkaloids, Macht found, as he anticipated, that they divided themselves into the same two groups chemically as in their physiological action. Morphine and its group have a pyridin-phenanthrene structure, papaverin and its related alkaloids a benzyl-isoquinolin structure. The tonus lowering power of the latter class was therefore to be ascribed to the benzyl group, or to the two groups combined. Narcotin and hydrastin produce powerful inhibitions of the contraction of smooth muscle, while their derivatives without the benzyl group, hydrastine and cotarnine do not produce inhibition or relaxation of the same organs and indeed may give a stimulating effect[12]. By a series of experiments with alkaloids containing one group only, Macht[6,11,12] showed clearly that the relaxation of smooth muscle is due to the benzyl grouping in the alkaloidal molecules. At the same time, by means of other experiments he showed that the toxic action of the opium alkaloids on paramecia[7] and trypanosoma brucei[10] is also to be ascribed to the benzyl radicle in such members of the group as papaverin.

Realizing the importance of these discoveries, Macht[9] made a search for compounds simpler than papaverin, which would be non-toxic and non-narcotic, but which might inhibit the characteristic tonus-lowering and inhibitory action of the benzyl radicle on smooth muscle. Ordinary benzyl benzoate and benzyl acetate were found to have these properties. He therefore recommended their administration in medical therapeutics in all cases in which there is an excessive peristalsis or contractions of smooth muscle structures or a spasmodic condition of the same. Space will not permit a further discussion of the history of these discoveries. The excellent papers of Macht himself are readily available, and in addi-

1. Cheinisse: Presse Med. **28**, 717 (1920).
2. Messner: Pharmazeutische Zentralhalle **62**, 356 (1921).
3. Macht: J. Pharmacol. & Exp. Therap **9**, 121 (1916).
4. Macht: J. Pharmacol. & Exp. Therap. **9**, 473 (1916).
5. Macht: J. Pharmacol. & Exp Therap. **9**, 197 (1916).
8. Macht: Amer. Jour. Med. Sc. **154**, 874 (1917).
6. Macht: J. Pharmacol. & Exp. Therap. **9**, 287 (1917).
7. Macht: J. Pharmacol. & Exp. Therap **10**, 95 (1919).
9. Macht: Proc. Soc. Exp Biol. & Med. **15**, 63 (1918).
10. Macht: Proc. Soc. Exp. Biol. & Med. **16**, 26 (1918).
11. Macht: Jour. of Pharm. & Exp Therap. **11**, 176 (1918).
12. Macht: Jour. of Pharm. & Exp. Therap. **11**, 389 (1918).

tion he has published several helpful resumes of his work.[13,14]

Macht[15] recommended the use of benzyl benzoate and benzyl acetate in the treatment of dysentery, mucous colitis, spastic constipation, biliary colic, dysmenorrhea, labor pains, ureteral colic, vesical spasms, circulatory conditions, bronchial spasm, angina pectoris, and asthma, and it was not long before successful trials were made. Sitzenberg[16] reported excellent results in obstructive, ovarian and vagotonic or spasmodic dysmenorrhea, and favorable results in the so-called acquired type due to some demonstrable pelvic pathologic condition, and even in the inflammatory type. 81.3% of the cases which he treated were relieved of pain, and in 62.7% of the cases the pain was completely stopped. As was to be expected, benzyl benzoate was found most useful in the spasmodic type or essential dysmenorrhea, and not efficacious where tumors or organic lesions are present. Similar results are reported by Hirschfelder[17], who also reports relief in many cases of bronchial asthma.

The treatment of asthma is one of the most important uses of the benzyl compounds, and Macht[18] has reported the clinical data for 150 cases treated by him. In 75% of these cases, both in children and in adults, treatment with benzyl benzoate was beneficial. "It should be borne in mind," Macht points out, "in weighing the value of benzyl treatment in asthmatic conditions that its action is merely as a bronchodilator and sedative to the bronchial muscle. Only those cases of asthma may be expected to yield to the effects of the drug which are characterized by a spasm of those structures. That this is the actual mechanism of the action has since been shown by Bullova and Gottlieb[19], who observed the bronchial dilatation caused by benzyl benzoate by means of X-ray observations of a living dog. Mason[20] obtained satisfactory results with benzyl benzoate in cases of bronchial asthma in children, and Woloshin[21] reports the complete relief in three days of a case of fourteen years standing which failed to respond to any treatment except the hypodermic administration of morphine every four to six hours. In this case the benzyl benzoate was injected hypodermically, the oral administration proving insufficient. Solis-Cohen[22] found benzyl benzoate of value in the treatment of various forms of asthma, and especially of a particularly irritating cough, known in Philadelphia as "Hog Island Whoop."

Perhaps the least expected property of benzyl benzoate is its value in the treatment of whooping cough. The muscles involved in laryngeal spasms are not of the smooth, but of the striated variety, so that little benefit should be expected from benzyl treatment. Nevertheless, during the whooping cough epidemic in Baltimore in 1918, Macht[23] found that of patients treated with benzyl benzoate 90% showed more

13. Macht: Proc. Soc. Exp. Biol & Med. (1918).
14. Macht: Med. Rec. **93**, 1005 (1918).
15. Macht: Jour. of Pharm. & Exp. Therap. **11**, 419 (1918).
16. Sitzenberg: J. Am. Med. Asso. **73**, 601, 782, (1919).
17. Hirschfelder: Minnesota Med. **3**, 380 (1920).
18. Macht: Southern Med. J. **12**, 367 (1919).
19. Bullova & Gottlieb: Am. J. Med. Sc. **160**, 98 (1920).
20. Mason: N. Y. Med. Jour. **112**, 399 (1920).
21. Woloshin: N. Y. Med. Jour. Sept. 18 (1920).
22. Solis-Cohen: Med. Rec. **93**, 1005 (1918).
23. Macht: Bull. Johns Hopkins Hosp. **31**, 236 (1920).

or less beneficial effects, while 50% showed marked improvement in the symptoms. A similar report is made by McMurray[24], who says: "Satisfactory and immediate results can be obtained in the treatment of whooping-cough by the use of benzyl benzoate," and "As a rule the relief is immediate and complete." In hiccoughs it is likewise of value. Macht[25] gives three case reports of the curing of persistent hiccoughs which had failed to yield to other treatment, and Ruhrah[26], in a paper on benzyl benzoate in pediatric practice, states that he "has used it sufficiently to be able to recommend it in bronchial asthma, spasmodic bronchitis, gastric or intestinal colic, hiccough or spastic constipation."

Good results have been obtained by the use of benzyl benzoate in cases of arteriosclerosis,[22,27] in lymphatic leucemia[28], and dysentery[30], both endamebic and protozoal. Haughwout, Domingo and de Leon[31] report a remarkable case of balantidiosis, complicated by infectious hookworn, which was treated with benzyl benzoate. Abdominal pain disappeared within twenty - four and did not return, the parasite was destroyed, and could not be found in the bowel lumen or gut wall at autopsy, which was performed upon the death of the patient from other causes.

The interest aroused by these excellent results with benzyl benzoate naturally led to the undertaking of further research in the field of benzyl therapy. This took two directions—experiments on smooth muscle structures in situ, and attempts to find other compounds possessing the therapeutic properties of benzyl benzoate and benzyl acetate without the disagreeable taste and odor of the former, or the irritating effects of the latter.

Questions have been brought up by Mason and Peck[32] as to whether large doses of benzyl compounds might not cause a central depressant effect sufficient to cause respiratory collapse. They also discussed the possibility that benzyl compounds such as benzyl benzoate might break down in the body to benzol or phenol.

Heller and Steinfeld[33] investigated the possibility of benzol production in the body from benzoates by means of observing animals injected with benzyl benzoate to ascertain whether or not the leucocyte count fell after such injections in a manner characteristic of benzol poisoning. Their conclusions are:

"1st—Benzyl benzoate was found to be without toxic effects upon the leucocytes of rabbits."

"2nd—Controls of benzol showed the well known depression of the leucocyte count."

"3rd—A wide margin of safety is present between the therapeutic doses and the toxic doses of benzyl benzoate, based upon observations on rabbits."

Two recent papers should be mentioned here. Staler[34] finds a lowering in the sphincter tone of rabbits by benzyl benzoate, which he says is consistent with the clin-

24. McMurray: N. Y. Med. Jour 112, 122 (1920).
25. Macht: Med. Rec. 98, 146 (1920).
26. Ruhrah: Am. J. Med. Sc. 161, 32 (1921).
27 Perrion: Paris theses (1921).
28. Haughwout: N. Y. Med. Jour. 110, 180 (1919).
29. Brown: Med. Rec. 93, 1006 (1918).
30. Haughwout: Arch. Int. Med. 24, 383 (1919).
31. Haughwout, Domingo & de Leon: Philippine J. Sc. 16, 633 (1920).
32. Mason & Pieck: J. Lab. & Clin. Med. 6, 62 (1920-21).
33. Heller & Steinfeld: N. Y. Med. Jr. 112, 160 (1920).
34. Staler: J. Urol. 8, 239 (1922).

ical observations of bladder distension relieved by this drug. Pack and Underhill[35] have investigated the influence of benzyl benzoate upon nitrogenous metabolism, and have come to the conclusion that the therapeutic dose for human beings is probably insufficient to disturb the normal nitrogenous metabolism. In connection with all these animal experiments it is well to remember the remark of Macht[36] that the results obtained in practical medicine must be given more weight than those obtained in laboratory experiments. While the laboratory results are in some measure contradictory, the reports of the medical profession testify almost unanimously to the beneficial effects obtained in a great variety of disorders by the use of benzyl benzoate.

A great part of the work on benzyl compounds other than the benzoate and acetate, and the preparation of the esters and the determination of their chemical properties and rates of hydrolysis has been done by Volwiler and Vliet[37], while the pharmacology was studied by Neilson and Higgins.[38,39,40] Their experiments were made on the organs of dogs in situ. It may be remarked that they did not attempt to hurry the experiments by any mechanical means, and that their results are perhaps more reliable than those of the earlier investigators. They found that the efficiency of the compounds investigated is proportional, with two exceptions, to the rate of hydrolysis, the exceptions being benzyl salicylate and benzyl acetylsalicylate. These differ from the other esters in that their molecules contain hydroxyl or substituted hydroxyl groups.

Attention should be called to two benzyl compounds, which promise to be of the highest value to the medical profession. These are mono benzyl sodium succinate and calcium benzyl succinate. While possessing all the advantages of the other benzyl compounds, they have the additional advantage of being in solid form, tasteless, and are soluble in water. Monobenzyl sodium succinate has been found to be strikingly efficacious in spastic conditions of nonstriated muscle.

Calcium benzyl succinate is a new development of even greater potentialities because it combines the antispasmodic action of the calcium atom with that of the benzyl radicle and at the same time is very swift in its effect due to its water solubility. Its toxicity is exceedingly low, 5-grains in no wise acting as a heart depressant on 5 lb. rabbits. This is equivalent to a single dose of 150 grains in a man weighing 150 lbs.

In conclusion, let me point out again that this new department of therapy has been opened up and developed within the short space of six years. Considering what has been accomplished in that time, it seems safe to predict that the field of the pharmacology of benzyl compounds and benzoates will widen and develop as we become more familiar with the nature of their action and as further experimental work is done. It is a field with which no member of the med-

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35. Pack & Underhill: J. Metabolic Research **2** 73 (1922).
36. Macht: J. Pharm. & Exper. Therap. **18**, 373 (1921).
37. Volwiler & Vliet: J. Am. Chem. Soc. **43**, 1672 (1921).
38. Neilson & Higgons: J. Lab. & Clin. Med. **6**, 388 (1921).
39. Neilson & Higgins: J. Lab. & Clin. Med. **7**, 69 (1921).
40. Neilson & Higgins: J. Lab. & Clin. Med. **7**, 579 (1922).

ical profession can afford to be unfamiliar. Dr. Macht has had the vision and the perseverance to effect an innovation in the science of therapeutics such as has been equalled by few.

The work I have directed in the endeavor to produce an ideal benzyl compound has been fascinating and fruitful.

I am indebted to Mr. H. M. Spencer and especially to Mr. H. Rivington Pyne for the collection of data on benzyl therapy and for the preparation of this paper.

TREATMENT OF DIABETES MELLITUS

Read Before Cabell County Medical Society, January 24, 1924

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Diabetes Mellitus is a symptom of some one or more underlying pathologic conditions resulting in a disturbance of normal metabolic processes, a loss of power to store glycogen in liver and muscle, and evidenced by an increase of blood sugar, glycosuria, and also a loss of power to emulsify and store fat, as evidenced by excess fat in the blood, acetone bodies in the urine, and a lowered respiratory quotient. The treatment includes the treatment of the cause, dietetic treatment, and medical treatment. Of these three the dietetic treatment is the important one, inasmuch as the cause is obscure and the medicinal treatment is confined to the treatment of the associated symptoms and complications.

However, while there is no known individual and definite cause, there are several factors which influence glycosuria. Among these are a disturbance of the central nervous system following nerve strain and worry, excess sugar intake with obesity and lowered sugar tolerance, pancreatic insufficiency, pituitary disease with increased secretion of the posterior lobe, acromegalic tendency with involvement of the anterior lobe, hyperactivity of the adrenals, hyperthyroidism, thyroidism, cirrhosis of the liver and fatty degeneration of the same, diet and habits of eating, diseased tonsils resulting in pancreatitis and subsequent diabetic symptoms, and lastly, inherited body structure — overweight. A diabetic should be given a careful and thorough physical examination and these conditions should be searched for, even though there is no remedy for some of these underlying conditions.

The dietetic treatment is by far the most important therapeutic measure. While gratifying results have been obtained in a large majority of cases, still in some smaller percentage of cases, results have been disappointing until the introduction of insulin. Inasmuch as it has proved to be a wonderful adjunct to the dietetic treatment of diabetes, and inasmuch as its use is indicated early during the course of treatment of some cases, a discussion of insulin will be of interest at this time.

Insulin, the internal secretion of the pancreas, is derived from the Islands of Langerhans, and the extract now in use is made from the pancreas of the hog by a special method of extraction devised by Collip. The good effects of Insulin are the disappearance of urinary

sugar, lowering of the blood sugar, disappearance of diacetic acid and acetone, a sense of well-being, of returned strength, a disappearance of polyuria, backache, a diminution of the manifestations of neuritis, which includes neuralgia, anesthesia, and paresthesia, healing of diabetic gangrene, increased carbohydrate tolerance of from two to five gm. above the glucose tolerance of the individual and that for each unit of Insulin used. In addition, with the proper diet, there is a progressive increase in body weight. In coma, the alkali reserve and alveolar CO^2 return to normal. The respiratory quotient shows evidences of the utilization of carbohydrates. The cardinal symptoms are relieved and the patients show marked clinical improvement.

However, as indicated above, all cases are not to be treated with Insulin. Adult diabetic patients with or without complications and having a carbohydrate tolerance of less than fifty grams, having a low caloric intake, and showing little signs of improvement, may be considered as candidates for Insulin. Also, patients with complications such as gangrene and not doing well under dietetic treatment, may properly be given Insulin. The drug may be given in cases of severe acidosis, cases of coma, and in cases under dietetic treatment where the sugar tolerance cannot be built up to the point necessary to provide for the proper body weight.

Insulin is a clear aqueous solution and is to be administered subcutaneously. It may be given intravenously in case of coma. In prescribing, enough should be given to keep the blood sugar within normal limits, and to keep the patient sugar-free with his diet ration. The question of dosage is a matter of experience and judgment. The same thing might be said in answer to the question, "When should Insulin be given and to what type of patient?" It is best given just after meals when the rise in blood sugar is most likely to occur. Small five unit doses should be given at first and the effect upon the blood sugar noted. Where you do not have a laboratory man at your elbow, it is a case for delicate judgment, for early symptoms of a hypoglycemia are not always noted by the untrained nurse or member of the household.

It should be definitely understood that Insulin will not remove the need for dietetic treatment and restriction. New patients ask the question, "Doctor, will I be able to eat everything I want when I have this new remedy?" The answer is invariably "no." Insulin is an ideal adjunct to the dietetic treatment of diabetes; it does not obviate the need for dietetic restriction. It is a specific treatment in diabetes in so much as it supplies the necessary internal secretion for metabolizing carbohydrates.

The diet in these cases aims to meet the requirements of the patient in accordance with the following principles: Not less than thirty calories per kilo, two pounds body weight, for ambulatory hospital or home patients; protein, one to one and one-forth grams per kilo of body weight, to prevent nitrogen loss, and weakening of the organism, and avoidance of metabolic strain from larger amounts; carbohydrates to tolerance, aiming at a nearly normal blood sugar, and

avoidance of glycosuria; fats to a high level of tolerance, avoiding acidosis, and to meet the caloric requirement of the patient in accordance with his physical needs. The question of high and a low fat content has been a point in dispute. It was argued that a high fat content enhanced the possibility of acidosis. However, with Insulin at hand, this need not be feared, and a high fat content materially raises the caloric value of the diet. Two parts of fat may be given with every one part of carbohydrate and every one part of protein at each meal. Any physician contemplating the handling of these patients should be familiar with the underlying principles of nutrition involved in this disease. He will be forced to decide daily upon the nutritional value of carbohydrates, protein and fats; their proper ratio to each other as stated, and the effects of too much or too little of each. He must also teach his patients how to select their own diets and how to make up their daily menus. This is a task that takes quite a little time and interest, for the meals must be made palatable and attractive. A diabetic does not want to eat the same things every day, and in this respect he is not unlike anyone else. However, with proper instruction and a little patience, the patient or some member of his family can soon learn to do this. I believe that this is the proper way to treat these cases. For this reason, I have these patients buy a new scale and give them preliminary instruction. So long as they adhere to a few simple rules, I will treat their condition. I do not want responsibility on any other basis.

Given a case Diabetes Mellitus, it is of prime importance to note the grade or the degree of the disturbance. This is estimated by determination of blood sugar percentage, quantitative sugar in the twenty-four hour specimen, and the degree of acidosis by determination of the alveolar CO^2 tension and plasma bicarbonate content. The amount of acetone in the urine is no indication, however, for the kidney's ability to excrete may be high or low. If there is a severe degree of acidosis, sodium bicarbonate may be given intravenously or otherwise. If not, the patient should be given a fixed diet for several days until the sugar output becomes constant. Then the carbohydrate tolerance is to be determined by adding the number grams carbohydrate in the diet, plus 58% of the grams protein, plue 10% of the grams fat. The total value thus determined, minus the number of grams glucose in the daily urine output constitutes the carbohydrate tolerance of the patient. This gives some idea of the rate at which the patient's diet may be increased after the fasting period.

These things determined, the patient is ready for fasting. The rate of reduction depends upon certain factors. Too rapid reduction at any time may result in a severe acidosis. This applies particularly to obese patients. A fat patient should be reduced more slowly than a thin one. A large amount of acetone in the urine indicates need of gradual reduction. Thyroid disease makes the patient subject or liable to an acidosis, so in these cases reduce more slowly than usual. On the first day eliminate all protein and fat and keep on 150 gm. carbohyd-

rate. On the second day give 75 gm. sugar, and on the third day 25 gm. sugar, and thereafter give black coffee with a little fat-free broth. When the urine is clear and the blood sugar is below .15%, the diet may be increased on a 1½ ratio of carb, protein and fat. Most patients may be started on 10 grams sugar per day. This is to be increased according to the carbohydrate tolerance as determined. An additional 10 gm. per day may be given to most patients. With the first appearance of sugar in the urine, there should be no further increase in the diet until the urine is again clear. It may become necessary to decrease the diet by ten or fifteen grams sugar for a couple of days before this occurs. The food intake is then again increased gradually to the highest point of tolerance. If this point is too low to provide for the patient's proper weight, Insulin may be resorted to. A diabetic should weigh not more than 10-20% below the normal for a normal healthy individual.

In treating these patients, they should be given plenty of water to flush out the acetone and lessen the acidosis. Coffee is useful by way of its diuretic effect.

The treatment of diabetes by drugs including Insulin is varied by the condition of the patient, the cause of his disease, and the quantity of sugar in the urine, and the treatment is for the most part sympmatic. The drugs commonly used are employed in many instances without any definite knowledge of how they act. In cases of rheumatic or gouty diabetes, colchicum, iodides, and the salicylates are of service. At times arsenic and lithium citrate give relief in these cases. Where regulation of the diet will control the disease, drugs are best omitted. Opium in ascending doses seems to control the progress of the disease, and is best given one hour after meals, for in this way the stomach is not so apt to be disordered. Excessive thirst can be allayed by the use of non-purgative alkaline waters. No drastic purges should be given, but green vegetables, fruit and bran muffin are beneficial in constipated cases. Drastic purges tend to concentrate the poisons in the blood. In cases of coma, normal saline may be given subcutaneously, intravenously, or by proctoclysis to rid the body of ketones. Without history or any definite information in a new patient with coma, give 5% sodium bicarbonate solution, about 500cc. intravenously. Mix sterile water and sterile soda. This fixes the hydrogen-ion concentration of the blood, but does not rid the body of acetone. When coma develops in a case under treatment and daily observation, give orange juice. This rapidly reduces the ketone bodies. Twenty-five units Iletin may be given intravenously in the beginning of treatment of coma. Then check the blood sugar, and if 400 mg. or more, give 25 units additional. Iletin may be given at the rate of 25 units q. 2 h., carefully watching its effect upon the blood sugar, which must not drop below .06 gm. In coma there is usually a failure of the circulation, and this must be supported. Here, caffein is useful by way of its diuretic effect.

Gangrene is a complication which leads many practitioners to begin feeding of Insulin. This is not nec-

essary in all cases. It is usually the dry type of gangrene that occurs in this condition. The hands and the feet are especially affected. A small areola makes its appearance on the toe or the heel or upon the finger tip. These usually cause pain with the formation of the blister which develops. These blisters rupture, and there follows necrosis with shrinkage, blackening and infection at times. It is important to recognize these local conditions, and care should be taken to keep down infection. This condition of gangrene does not progress if the diabetes is properly treated and if the case is under control. Gangrene and abscess of the appendages and the lung arise due to the fact that the tissues are unable to utilize the oxygen present. There is a deficiency of the blood plasma bicarbonates by means of which the carbon dioxide is under normal conditions carried to the lungs. Until this CO^2 is removed, the tissues cannot utilize more oxygen. It becomes necessary then only to treat the condition termed "acidosis."

I have three cases to report briefly:

Case 1. Mr. R. S., student of medicine. For several days had been complaining of nervousness and irritation following urination. Examination of urine showed presence of sugar. His parents stated that he had been working as an automobile salesman in spare time while attending school, and that he had been worrying about his school work. He was advised to leave school for the year, rest up, and return the following year. In a comparatively short time, examination of his urine showed complete absence of sugar. He returned the following year, looking and feeling much better. He returned to his work with added vim and continued for about two months, at which time he began to complain of the same symptoms as previously. Examination of the urine showed presence of sugar and the blood sugar reading .195. He decided to give up the idea of studying medicine. I saw this man two years ago. He told me that he was sugar-free and was working as assistant sales manager for the automobile company. This was a case of disturbed nervous system following nerve strain and worry.

Case 2. I saw this case in the early part of last summer. Patient weighed about 120 lbs. Diabetes of three years duration. Had been careless with his diet for several months. For several days he had been feverish and weak. He was brought to the hospital late one night in a state of coma. Catheterized specimen of urine showed 4-plus sugar and acetone. Blood sugar was .300. Using the height of the blood sugar as a guide, he was given 20u. Insulin q.2 h for six doses, and after that, 15u. three times daily for two days. During the first twenty-four hours he was given 4500cc. water and 100 gm. glucose by means of a stomach tube. Several hours after admission he was semi-conscious, and thirty-six hours after admission he was much improved. Two weeks later he was taking a diet of C. 40, P. 42, and F. 100. The last time I saw this patient he was taking 2000 Cal. daily and was not taking any Insulin. The plan of treatment in this case was as follows: (1) To administer large amounts of water, 4000 to 5000 cc. in 24 hours, to flush out

the acetone and so lessen the acidosis; (2) To furnish glucose with which to oxidize the ketones; (3) To supply insulin, the internal secretion of the pancreas which metabolizes carbohydrates and fats.

Case 3. At the present time, we have a chronic case at the C. and O. Hospital. I call him "chronic" because he has visited the hospital several times with the same complaint. He came in this time primarily for treatment of a leg injury. He was in the hospital for several days when Dr. Vest asked me to treat his diabetes. His urine showed 4-plus sugar, and he had an abscess on the right heel and a reddened area on the second digit of the right foot. Dr. Bancroft had seen him and had limited his diet to black coffee for several days and had ordered a blood sugar estimation. Taken after the period of fasting, it read .064. Inasmuch as his sugar tolerance had not been estimated, I then put him on a liberal fixed diet for several days and checked the carbohydrate tolerance. I then had a confidential talk with him and members of his family, after which they purchased a new dietetic scale in Cincinnati. I then began feeding him as above indicated. At the present time he is taking 2500 Cal. per day, his urine is clear of sugar, acetone and diacetic acid, and his blood-sugar is less than .110 mg. His surgical condition is healed, and the abscess and a small gangrenous spot is mending nicely. His general condition is much improved, he experiences a sense of well-being and has gained several pounds body weight. I have treated him since the 8th day of January, a period of two weeks. He has not had any insulin.

I'd like to mention one or two points concerning diabetes and operation. Before operating on a diabetic, the urine should be free of sugar, acetone and diacetic acid, and the patient should be on a diet of at least 1000 Cal. Gas is the anesthetic of choice, nitrous oxide being the least harmful. Ether is all right, but chloroform should never be used, for it renders the liver free of glycogen and adds to the blood-sugar.

Conclusions

First. While it often is difficult to get patients to live up to a strict dietetic treatment. I believe that this is essential to the proper handling of such cases, and do not want to assume the responsibility on any other basis. If they don't live up to it and come back to you with a recurrence of the symptoms, I believe it is a mistake to again take care of them. In a way, it is like giving a second dose of diphtheria antitoxin to the same patient—it looks bad for the doctor.

Second. Insulin should be used properly.

Third. Surgery if indicated should be done after taking the proper precautions.

WHAT U. S. PUBLIC HEALTH SERVICE IS DOING BY SOLVING INTERSTATE HEALTH PROBLEMS

Of great importance to both city and country is the solution of the health problems connected with drinking water. Up to 50 and even to 25 years ago (depending on the progress of settlement in the United States) few creeks and rivers were so over-loaded with industrial and

sewage pollution as to be unable to purify themselves by natural processes within a few miles, the actual distance depending on various conditions.

All this is changed. The ground about many surface wells and the rock strata from which many deeper wells draw their supply have been so permeated with pollution that any water that has filtered through such soil or strata has become dangerous; many lovely sparkling creeks obtain some of their water from farm or village cesspools; and most rivers carry waters which cities on their banks do not dare to drink untreated. Water is also polluted by wastes from huge industrials plants. Oyster beds and bathing beaches on the sea coast have been so polluted by city sewage that some of them have had to be abandoned.

All this gave rise to an entirely new set of problems which had to be solved in order to protect the health of both city and country dwellers. How well these problems have been and are being solved appears from the fact that the death rate from typhoid fever in 57 United States cities has been reduced in 13 years (1910 to 1922 inclusive) from 19.59 to 3.15 per hundred thousand. Unfortunately the decrease in the rural regions has not been anything like so great In spite of a great campaign of education the farmer has not yet learned to locate his well properly with regard to his privy. For this reason drinking water is much more apt to be polluted with disease germs in the country than it is in the city.

Some of these problems are of course largely State problems to be met by State laws. But from its very nature running water in the United States must be largely an interstate problem which can best be handled by Federal authorities in cooperation with the States.

Many years ago the Public Health Service began to study water supplies in connection with the suppression of typhoid fever outbreaks for which its aid was invited. Its experience with these led it strongly to advocate the use of sanitary privies in unsewered regions and the handling of human excreta in such ways that it should not pollute wells. Some years later this was extended to the sewerage problems of single houses and of small communities. Later the question of river pollution by city sewage became acute; and one of the earliest investigations undertaken by the Service was that of sewage pollution of interstate waters in the Great Lake regions and in the Mississippi River and Potomac River watersheds. This showed what the problem was and what unless controlled it must sooner or later become—something that until then had not been realized.

At about the same time, the Service took up the task of investigating disease-breeding pollution, due to both sewage and industrial wastes, in oyster beds along the United States sea coasts. Its findings, when applied by the States interested, resulted in preserving many oyster beds and bathing beaches by making them safe against pollution.

The Service next took up the subject of industrial wastes. In the preceding 50 years, industrial plants, once comparatively few, had increased in numbers enormously and (up to about 10 years ago) had in most States unhesitatingly dis-

charged into creek or rivers wastes from chemicals used in paper making, tanning, bleaching, etc., to say nothing of the rotting remains from canning vegetables. Nearly all of such wastes were harmful and some of them were actually poisonous.

The problem was to find how a given industry could be continued and at the same time the health of those dependent on the stream for drinking water could be protected. The problem was largely specific; that is, it differed with the wastes from each form of industry.

Besides establishing many general principles the Service has worked out methods by which wastes from strawboard, tannery, creamery, tomato canning, and other factories can be so handled or utilized that they will be rendered harmless. It showed how the thing could be done; and many factories forthwith voluntarily instituted measures to treat their sewage and wastes. Those that did not act of their own accord were in some States required to do so by the State health authorities.

The Public Health Service has divided the United States into seven sanitary districts. In each district a sanitary engineer supervises the water supplies used by interstate carriers and cooperates with the State health authorities in the certification of drinking waters used on railway trains and river and lake steamboats.

They also assist in solving the protection of city water supplies "before they are built" by helping in the selection of sites or by pointing out by what criterions they should be selected and how they could best be protected from pollution; and they do similar work in regard to sewage plants. They report everything of value that may develop to the Service, which publishes and disseminates it for general information.

Last year, in the New England district alone such work was done in cooperation with the States on 32 public water supplies—3 in New Hampshire, 1 in Vermont, 7 in Maine, where also plans for the abatement of two sewage disposal nuisances were prepared, and 21 in Connecticut. Similar work was done in each of the other Service districts.

The Public Health Service in cooperation with the States has assured clean drinking water to travelers.

ELECTRIC LIGHT AND POWER BONDS — A GOOD EXAMPLE OF THE THINGS THAT MAKE AN INVESTMENT WORTH BUYING

By SAMUEL O. RICE
Educational Director, Investment Bankers Association of America.

This article comes right down to specific classes of bonds and endeavors to convey essentials in what investments to buy and why to buy them. Electric light and power bonds of sound, well-managed companies are among the safest and most desirable investments. The reason they are so is because the demand for electricity is greater than the electrical industry can supply, although electrical companies are annually putting more than a billion dollars a year into extensions and improvements of their plants and transmission lines.

The foregoing is only one of many sound reasons why the electrical

field is so desirable for investors. There are many others. But don't misunderstand me to say that all electric light and power bonds are good buys. That is not true of any class of investments, commodities or property. The investor should have dependable information that the bonds he buys are those of sound, well - managed companies. He should know that the general field or class he contemplates investing in is sound. Electricity can sell more of its product than it can produce and the demand is constantly increasing. There is no substitute for electricity. But all electrical companies are not well-managed or conditions in some locality may make it difficult for a company to succeed although it be engaged in one of the most prosperous lines of business in the world.

Sales of electricity by central stations in the United States will run close to $1,300,000,000 this year. The very reliable Electrical World makes that estimate. The total sales of electricity for the first six months of 1923 were $649,300,000, which was 19.5 per cent more than $542,000,000 received in the first six months of 1922. In the first six months of 1923 electrical companies issued in excess of $600,000,000 in stock, bonds and notes to obtain capital for extensions and betterments of generating plants and transmission lines. As I said, electrical companies are putitng more than a billion dollars a year into extensions and improvements in an effort to keep up with the demand for more and more electricity.

Where is all this demand for electricity coming from? Is it sound? Will it last? Those are pertinent questions. Let us consider the three great markets that buy electricity. These three are electric lighting, electric railways, and electricity for power uses in industry, in mills and factories. The greatest demand for electricity is from the industries, although many persons erroneously believe that the greatest market for electricity is for lighting homes and streets.

There were 24,351,676 homes in the United States when the 1920 census was taken. Of these only about 8¾ million homes are lighted by electricity. That leaves a great number of homes yet to be lighted by electricity. Of these, a large number are included in about 7 million farm homes, but quite a few millions of homes without electricity are city and town homes and daily many of them are becoming electricity users. Homes having electric lights generally have greatly increased their consumption of electricity by more artistic and better lighting. Bridge lamps and several colorful table lamps are common in almost every living room and parlor where a few years ago one single electric globe sufficed. The number of electric lights has been increased in every room in every modern home, be it bungalow or mansion. Added to this increase in illumination is the use of electricity for cooking, for operating washing machines and other home appliances and for ironing.

Electricity was first most largely used for lighting. Then electric railways developed and became the greater market for current. Today, however, factories and mills that use current for power are the greatest market for electricity. It is a tremendous new development that the public knows little of. I know

one industrial plant whose electricity bill runs close to $35,000 a month.

But there is still another development in the electrical industry that every investor and prospective investor should appreciate. It is "super-power," the interconnection of different electricity companies so that the greatest economy and efficiency in producing and distributing current can be brought about. A few years ago this interconnection was impracticable because the industry did not know how to handle high voltages economically. Current is most cheaply transported on high voltage lines. Improvements, largely in insulation, have made it practicable to transport high voltage economically considerably more than a hundred miles and thus greatly increase the efficiency of generating plants. A few years ago, no matter how much current it should produce, a plant was limited in its "output" because it could not transport electricity a long distance. Now all that has been worked out and interconnection between plants hooks up many states.

It is impossible to portray in this short space all the great picture of "super-power" and interconnection. One little advantage of this development will indicate its great importance and usefulness. Water power electric plants usually have two extremes in production of current. Low water and flood may both cut down the current producing of the hydro-electric plant. In such a situation a hydro electric plant might not be able to serve all its customers. In many cases interconnection solves that difficulty. The current simply is drawn from some steam power electric plant perhaps a hundred or more miles away. Likewise, when the water-power plant is operating at full capacity the distant steam plants can cut down on the use of coal by drawing current through their interconnection with water-power plant.

I mention only a few salient points to indicate the sound field of the electrical industry. Any business that has as large a usefulness and demand cannot but be fundamentally sound. Would I advise physicians to buy electric light and power bonds? I wouldn't advise anybody to buy anything. Every man's investment requirements are different from those of every other man, or woman. A person's income, obligations, dependents and many other conditions should be carefully considered and his investments be made to fit that situation. I write this only to suggest that anyone with something to invest consider the electrical industry. There are other utility bonds and industrial bonds just as safe and desirable as the best electric light and power bonds. All should be considered and the investor should keep their characteristics in mind so that he may diversify his investments, not put them all in one enterprise. My suggestion is not to buy electrical industry bonds, or any bonds or stocks without first consulting an honest, established dealer in securities. It is the greatest essential in making sound investments.

ANNOUNCEMENTS AND COMMUNICATIONS

January 30, 1924.

To Physicians and Sanitarians:

The United States Public Health Service takes pleasure in announcing that, in response to an extensive demand for summer school work in public health, it has arranged with Columbia University, the University of California, the University of Michigan and the University of Iowa to conduct public health summer schools this year.

The faculties of these various summer schools will include many such leading specialists of the United States as Michael M. Davis (dispensary management), Robert H. Gault (criminal psychiatry), Emery Hayhurt (Industrial hygiene), William J. Mayo (non-communicable diseases), E. V. McCollum and H. C. Sherman (nutrition), William H. Park (laboratory methods), Earl B. Phelps and George C. Whipple (public health engineering), M. J. Rosenau and Victor C. Vaughan (epidemiology), Thomas W. Salmon (psychotherapy), John H. Stokes (syphilis), Philip Van Ingen (child hygiene), C.-E. A. Winslow (public health administration), and Francis Carter Wood (cancer).

The Public Health Service has already received communications from several thousand physicians and sanitarians who hope to attend these summer schools The widespread interest manifested thus early indicates that a large number will take advantage of this opportunity.

Yours very truly,

H. S. CUMMING,
Surgeon General.

February 4, 1924.

Dr. James R. Bloss, Editor
West Virginia Medical Journal,
Huntington, W. Va.

My dear Doctor Bloss:

I am indeed glad to give you any information I can relative to the question of employing a full time executive secretary. In order that you may have a more complete understanding of the situation I will say that Wisconsin decided to employ a full time lay executive secretary-managing editor in the fall of 1922.

At that time the dues to the society were $4,00, which included the subscription to the state journal. The society was paying close to $5,500 annually for publishing the Journal, representing the difference between the cost of publication and the advertising revenue. On the secretary's side the society was paying but $50.00 a month toward stenographic services for the secretary. In the legislature it was apparent that the opposition would win their fight to break down the minimum requirements of the medical practice act in 1923 unless some more active step was taken in that line of work.

I was selected as executive secretary-managing editor on February 1, 1923, at a salary of $3600 a year and traveling expenses. It does not now appear that those opposing proper medical licensure laws will ever come so close to success and on the other hand, it seems possible that a basic science bill prescribing minimum requirements for all who desire to practice medicine will pass at the next session.

Through economies in the Journal accounts and by reason of increased advertising, the $5,500 subscription from the society is no longer necessary. For the last five months the Journal cost the society $35.00.

For many years the annual meeting had been an expense to the society of from $500 to $1000. By reason of the increased amount of exhibit space sold, the last annual meeting was a source of a small profit.

From a purely financial standpoint, therefore, the Wisconsin experience over a year period, with 1882 members, has shown that the employment of a full time secretary-managing editor has been an economy rather than an expense. As a matter of fact, the dues were raised from $4.00 to $9.00 for the purpose of retaining a full time officer and to make additional services available to the members. The entire amount of this increase, $5.00 per member, is now in the bank representing a surplus—something close to $11,000.

From the point of view of service to the members, the secretary has established, in cooperation with the University of Wisconsin, a package library service on scientific subjects. This service receives all the reprints from the American Medical Association and all our exchange journals. It will, of course, become more valuable as it grows older but it is a source of current material to aid the members in compiling papers and in posting themselves on the recent work on any particular subject.

In addition the secretary has secured for the members the privilege of obtaining any book now in the medical library of the University of Wisconsin. The society pays the postage one way so that the only cost to the members is the return postage. In the third place, all books received for review are forwarded to the medical school, University of Wisconsin, where they are reviewed. They are then placed in the medical library of that institution, and are immediately available for inspection purposes by any member of the society.

Reduced rates were secured in November for popular and some scientific publications and approximately 100 members took advantage of them making material financial savings in many cases.

For the past several months we have been investigating the possibility of securing reduced rates for automobile insurance. It seems possible that some step will be feasible and proposed at the next house of delegates.

Every effort has been made to improve the contents of the Journal, not so much from the point of view of the original articles, but from the point of view of adding articles of state interest. Under separate cover I am forwarding a copy of our December and January issues which will indicate the work we are doing in this respect.

The secretary's office, in addition to the above, serves as a clearing house for questions on any and all subjects. I should say that we have probably a half dozen letters a day asking for information on medical

subjects, laws, state departmental rulings, request for a specific copy of foreign medical journals, information regarding physicians, and of course the usual amount of letters respecting quacks and quackery.

The secretary has established a monthly bulletin service which goes to all officers of the state and county societies. I enclose several of these bulletins which indicate the type of information they carry.

By far the largest problem, however, is the problem of securing active lay support and doing lay educational work. I am happy to enclose a letter which is going out to the members today with a reprint from our February issue which explains this work rather completely. This takes up a large part of the secretary's time and while we anticipate some immediate results, it is a work which will be conducted and extended from year to year.

To summarize, the secretary's work is divided into four fields: the work as managing editor of the Journal, purely secretarial work, endeavor in the field of service to members, and the larger field of work along the lines of lay education, in which the secretary serves as a point of contact between the physician and the public.

If I may be permitted to emphasize any one point in my year's experience, I would emphasize the point that a full time secretary must be "sold" to the members on the basis of service both to the members and to the public and not on the basis of an individual financial saving that he might possibly make to the members. That is, a secretary should be employed because the duties he will assume warrant the employment of a full time man and because he will be able to carry out in a more active way the policies and plans of the society. He should not be employed with the idea that he will be able to establish any service that will mean any considerable financial saving to each individual member. It is true that he may be able to accomplish something in this line but that should not be the basis for his employment, for the reason that dissatisfaction will occur if results are not immediately apparent.

Personally I know that no member will realize the amount of work that falls upon the full time officer but we are beginning to see results at the end of a year—we will have more results at the end of two years and I feel very strongly that any society which publishes a journal will find it is but a small additional cost to employ a full time officer.

If there is any additional information that I may be able to afford I trust you will not hesitate to call upon me.

Cordially and sincerely yours,

(Signed) J. G. Crownhart,
Executive Secretary.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - Editor

J. E. RADER, M. D.
W. E. VEST } - Assistant Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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DELEGATE TO A. M. A. 1923-1924: Dr. Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

COUNCIL

FIRST DISTRICT: Charles C. Morgan, Moundsville, two-year term; H. P. Linz, Wheeling, one-year term.

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FOURTH DISTRICT: G. D. Jeffers, Parkersburg, two-year term; J. E. Rader, Huntington, one-year term.

FIFTH DISTRICT: H. G. Steele, Bluefield, two-year term; J. Howard Anderson, Marytown, one-year term.

SIXTH DISTRICT: C. A. Ray, Charleston, two-year term; B. B. Wheeler, Beckley, one-year term.

THE WHEELING MEETING

The date selected for the meeting of the Association in Wheeling is May 13th, 14th, 15th. We must make our plans now to attend in force. Our Wheeling brethren have always exerted themselves to make our stay in their midst enjoyable, and we know that this year will be no exception. As yet we have no advance information on the scientific program, but we know it will be of the standard that our Association has established.

In this connection I am requested by the President and Secretary to ask that those desiring to present papers will send the titles in to Dr. D. A. MacGregor, the State Secretary, at once, as it is essential to have these in order to prepare the program.

INSULIN

From the number of inquiries which are coming in to physicians in general practice, out on the firing line, in regard to the administration of Insulin to patients with

diabetes, one would judge that there has been a great deal of hope aroused that an absolute cure has been discovered. Hardly a day passes in which someone does not call us and ask if we give Insulin. We try to explain to them what can be done with it, and that it is not a specific as is Sulpharsphenamine and Mercury in Syphilis, or antitoxin in Diphtheria, or Quinine in Malaria, and that they cannot take this drug or product with no thought to diet. We are often informed that Doctor So-and-So is giving it, and guarantees to cure.

This is only in the nature of a warning that physicians should not hold out hopes which are not attainable to sufferers with this disease, and that they should very carefully consider all phases of the subject before either taking it or recommending it to patients. Further than this, they should be in a position to have all the laboratory control work done before indiscriminately administering it. Used properly and in cases selected, it is a therapeutic measure of great value. We must take care, however, not to abuse it and so bring it into disrepute.

In the section of Announcements and Communications you will find a letter from Mr. J. G. Crownhart, the full time executive officer of the Wisconsin State Medical Association.

This letter gives a very clear resume of what that organization has been able to accomplish in the short space of one year, and a glimpse of what it is hoped they may bring about in the future. It is rather remarkable that so much organization work has been done in this length of time.

We venture the opinion that the members of the Wisconsin State Association have been more than pleased with the results to date. This but bears out the experience of the other states which have adopted a similar plan. His closing remarks upon what is NOT to be expected by each individual member are timely.

The whole question hinges upon our co-operation and the having of a definite policy. To do this it is absolutely necessary that an executive officer devoting his full time to the association's business shall be provided for. It cannot be accomplished by having elected officers who are busy physicians, giving what little time they can spare from practice, to try to get results. It simply canont be done and it is not fair to our officers to expect it of them.

Take this question up in your societies, talk it over and try to come to some conclusion. Do not fail to study it with an open mind. It is the most important question which has been before the State Association for a long time. Action should be taken definitely at the Wheeling meeting.

PRESIDENT'S DISAPPROVAL OF FEDERAL SUBSIDIES TO STATE GOVERNMENTS

President Coolidge has taken a positive stand against expansion of federal subsidies to state governments. His policy was outlined in the address made by him to executive heads of the government departments, held at Continental Hall, January 22. While the President did not specifically mention the par-

ticular federal government activities in which the states are beneficiaries from federal appropriations, it is evident that he had in mind the appropriations under the Sheppard-Towner Infant and Maternity Law, the federal Vocational Training Law, and similar acts which turn over federal money to the states, provided the states appropriate similar sums from state funds. To quote:

"I take this occasion to state that I have given much thought to the question of federal subsidies to state governments. The federal appropriations for such subsidies cover a wide field. They afford ample precedent for unlimited expansion. I say to you, however, that the financial program of the chief executive does not contemplate expansion of these subsidies. My policy in this matter is not predicated alone on the drain which these subsidies make on the national treasury. This, of itself, is sufficient cause for corncern. But I am fearful that this broadening of the field of government activities is detrimental both to the federal government and to the state governments. Efficiency of federal operations is impaired as their scope is unduly enlarged. Efficiency of the state governments is impaired as they relinquish and turn over to the federal government responsibilities which are rightfully theirs."

The position taken by President Coolidge is sound economically and sociologically; it is that for which the medical profession and The Journal have contended.—Jour. A. M. A., Feb. 2, 1924

COUNTY SOCIETY REPORTS

The Barbour-Randolph-Tucker Medical Society met in the Y. M. C. A. Building January 24th, 1924, at 1 P. M., the following members being present: Drs. C. H. Hall, W. G. Harper, P. L. Gray, T. M. Wilson, E. M. Hamilton, A. P. Butt, J. C. Irons, L. W, Talbott, W. S. Michael, A. S. Bosworth, S. G. Moore and Guy H. Michael.

The President, Dr. Hall, presided. Minutes of previous meeting read and approved and accepted. Bills allowed.

Request from State Secretary Dr. MacGregor to select a member for part in May program, etc., was read, and no action taken as no one seemed willing to prepare a paper for the State Society.

Dr. C. H. Hall read a very appropriate paper on his ideals for society work, and pledged his best services in promoting the good fellowship and co-operation among the members. Dr. Hall has promised us the paper for the medical journal.

Dr. P. L. Gray read a very interesting paper on Insanity. Dr. Gray is well prepared to give information in this line as he was for some time an interne or assistant in the Weston Asylum, and his knowledge from reading, instruction and experience is far above the average. Dr. Gray has kindly promised to prepare his paper for the Journal.

Dr. J. C. Irons read a paper, "The Macedonian Call," in response to the appeal from the chairman of the Legislative committee, Dr. C. A. Ray. This paper is sent to the Journal with the hope that it may stimulate co-operative action throughout the State.

Dr. A. P. Butt gave a very interesting talk on "Localized Anesthesia as a safer, more satisfactory and less dangerous means of numbing tissues, than Generalized Anesthesia." General anesthesia is often dangerous, and Dr. Butt insists that it should only be given by or under supervision of a careful anesthetist. Too often the condition of the heart, lungs or kidneys is not ascertained before the giving of anesthetics.

The society adjourned to meet in Elkins in April.

J. C. IRONS, M. D.,
Secretary.

January 10th, 1924.

A regular meeting of the Cabell County Medical Society was held in the parlor of the Hotel Frederick on the evening of January 10th. The meeting was called to order by Dr. R. J. Wilkinson, who after a brief speech in which he thanked the officers and members for their cooperation, retired in favor of Dr. T. W. Moore, the recently elected president.

The minutes of the previous meeting were appproved as read, there being no corrections, alterations or amendments.

Dr. Hubbard, as chairman of the "pep" committee, reported that they had taken up the question of a permanent meeting place very thoroughly and recommended that the society accept the offer of the Hotel Frederick for use of the parlor at the rate of $5.00 a meeting. The motion was seconded.

The following amendment was then offered, that the recommendation of the committee be accepted temporarily and that the committee be continued and asked to see if a more suitable location was available. The amendment was not accepted by the maker of the former motion. At ballot both on the amendment and the amended motion both were passed.

At this point the committee tendered their resignation but this was refused by the President.

The transfer of Dr. H. V. Lusher from the Gallia County Medical Society was accepted.

The Board of Censors approved the names of Drs. I. I. Hirschman, W. H. Deer and Edward Bancroft for membership.

Dr. Bloss moved that the censors' report be accepted and that the rules be suspended and that all names be elected to membership. Motion carried.

Dr. J. H. Steenbergen read a most complete and interesting case history of a blood-stream infection in a pregnant woman. The report was provocative of a lively discussion and proved very interestnig.

The attendance was 36.

There being no further business the meeting was adjourned.

OSCAR B. BIERN, M. D.,
Secretary.

Approved: T. W. Moore, Pres.

January 24th, 1924.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of January 24th, with the President, Dr. T. W. Moore, presiding.

There being no corrections to the minutes of the previous meeting, they were approved as read.

Dr. I. I. Hirschman read a very interesting and instructive paper on Renal Diabetes, which was illustrated with lantern slides to show blood-sugar levels in various condi-

tions, and Dr. W. H. Deer followed with an excellent paper on the modern treatment of Diabetes Mellitus. As these papers were similar in nature they were discussed together, by Drs. Vest,, Hawes, Hodges, Swezey and Biern, Drs. Deer and Hirschman closing the discussion.

Bills presented and ordered paid.

It was moved that this Society carry out the plans formulated at a previous meeting of having a speaker of note come here to address a joint meeting of the Cabell County Medical Society with the local Anti-Tuberculosis League, and Dr. Paul H. Ringer of Asheville, N. C., was invited.

The following committees have been appointed for the year: Public Policy and Legislation, Dr. Bloss, chairman, Drs. Hatfield, Neal, Rader and Bruns; Program Committee, Dr. Vest, chairman, Drs. Rowley and Biern; Pep Committee, Dr. Hubbard, chairman, Drs. Marple and Willis; Representatives on Public Charities, Dr. J. A. Guthrie and R. J. Wilkinson.

Attendance 32

There being no further business, the meeting was adjourned.

OSCAR B. BIERN, Secretary.
Approved: T. W. Moore, Pres.

STATE AND GENERAL NEWS

Shortly after returning from a call on a patient, Dr. E. B. Fittro, 53, prominent physician of Salem, W. Va., dropped dead in his office Jan. 15th. He had been afflicted with heart disease. Dr. Fittro was formerly president of the Baltimore & Ohio Railroad Physicians' Association, member of the Salem Board of Education and the Salem Kiwanis Club. The widow and a daughter, Miss Mary Fittro, Clarksburg high school teacher, survive him.

Dr. A. K. Kessler and Dr. J. C. Kessler, Huntington, have moved their offices from Fifth avenue to the fourth floor of the new Simms-Keller building at the corner of Fourth avenue and Seventh street. They have taken an entire floor in this new office building.

Dr. J. S. Klumpp is in Saginaw, Mich., where he was called by the illness of his father. A telegram was received by Mrs. Klumpp, stating that his father is much improved.

Dr. P. W. McClung of Elizabeth, W. Va., died after several months' illness. He was captain in medical corps in the late war 55 years old.

Dr. Guy Yost, of Huntington, has moved his office to 419 Eleventh street in that city.

Dr. Gordon Wilson, under the auspices of the local Anti-Tuberculosis Society, with the co-operation of the Eastern Panhandle Medical Society, held a Tuberculosis Clinic in Martinsburg, W. Va., on January 19th, at which a good many suspected cases were diagnosed tuberculosis, but as usual there are no doubt a much larger number who are affected that did not attend.

At the last meeting of the Eastern Panhandle Medical Society Dr. W. H. Crum was elected President, Dr. B. B. Ransom, of Harpers Ferry, Vice-President, and Dr. James K. Guthrie, Secretary.

Dr. P. A. Haley, of Charleston, has been ill with pneumonia. We are glad to state that his condition is improved.

Dr. G. C. Schoolfield, Charleston, is spending his winter vacation in Florida.

Dr. W. T. Henshaw, State Health Commissioner, recently underwent an operation in the Charleston General Hospital.

President Ashworth has announced the appointment of the following members to compose the Committee on Medical Education: Dr. J. N. Simpson, Morgantown, chairman, Dr. W. T. Henshaw, Charleston, Dr. W. S. Fulton, Wheeling. He has reappointed the Hospital Committee which is composed of Dr. Chas. M. Scott, Bluefield, chairman, Dr. Frank Le Moyne Hupp, Wheeling, and Dr. A. P. Butt, Elkins.

Dr. R. J. Wilkinson, surgeon in charge of the Chesapeake and Ohio Hospital, Huntington, is spending a few weeks in Florida.

Drs. W. E. Vest, O. Biern and F. C. Hodges of Huntington attended the meeting of the American Congress of Physicians in St. Louis.

Dr. L. V. Guthrie, superintendent of Huntington State Hospital, is spending his winter vacation in Florda.

Dr. George Dalbert Johnson, for many years chief surgeon for the Consolidation Coal Company, in Kentucky, has moved to Huntington and opened offices in the new Simms-Keller building at Fourth avenue and Seventh street. Dr. Johnson is well known as a surgeon in Huntington and in many Kentucky towns. He will specialize in surgery here, he has announced.

Dr. J. E. Maring, aged 66, former mayor and postmaster of Bluefield, died recently at Miami, Fla., where he suffered a stroke of paralysis. Dr. Martin had been a resident of Bluefield for thirty years. He had taken a very active part in Republican politics in the southern end of the state. He is survived by his widow and four children.

Drs. C. T. Taylor and L. T. Vinson, Huntington, have returned from a several weeks vacation spent in Florida.

Dr. Beverly R. Tucker, of Richmond, Va., was a recent visitor in Huntington on professional busi-business.

Born to Dr. and Mrs. Grover Latham Howard, Huntington, Feb. 11th, a son.

The son of Dr. W. F. Bruns, of Ceredo, was quite seriously injured when struck by an automobile and thrown in front of a street car, in Huntington.

Benjamin Franklin spent much time in England from 1757 to 1762 representing the American colonies. While here he placed one hundred pounds in the hands of members of the Society of Friends as a trust, to be invested with accumulations, for not less than one hundred and fifty years. Thereafter at the discretion of the trustees, awards were to be made from time to time for the most valuable contributions to science considered by them either manuscript or published, on the subject of cures, but particularly in relation to surgery, the nervous system and part "mind treating" have in the recovery and preservation of health. Announcement is now made of the first awards from this fund. Minor award, Fusakichi Omori of Tokio, unpublished treatise "The Rotary Knife in Surgery," five hundred pounds and publication of treatise. Award, Charles P. Steinmetz of Schenectady, privately published treatise, "The Nervous Sys-

tem as a Conductor of Electrical Energy," one thousand pounds and republication of treatise. Major award, Pierson W. Banning of Los Angeles, on published work, "Mental and Spiritual Healing; All Schools and Methods; A Text Book for Physicians and Metaphysicians," two thousand five hundred pounds, scholarship.

Announcement has just been made by E. Fullerton Cook, Chairman of the Revision Committee of the United States Pharmacopoeia, that standards for whisky and brandy as medicines will be included in the new Pharmacopoeia now being revised. This is in response to a demand by the physicians of the country.

Under the national prohibition laws, whisky and brandy are classed as medicines and as such are legally prescribed in many cases of serious illness, but at the present time no legal standards exist for their purity.

All physicians of the General Revision Committee, acting as a subcommittee were appointed to study the situation and take the necessary action. This sub-committee has issued the following statement:

"In view of the fact that a large number of physicians in the United States believe alcohol to be a valuable therapeutic agent, and in view of the widespread adulteration of the alcoholic liquors at present available, the members of this Referee Committee feel that for the protection of the public, there should be an official standard for medicinal spirits."

By including standards for whisky and brandy as medicines, in the Pharmacopoeia, which is the legal standard for drugs and medicines under the Food and Drugs Act, the machinery of the U. S. Department of Agriculture and of the Boards of Health and Boards of Pharmacy throughout the country is enlisted in protecting the sick against adulterated and poisonous products.

DR. LUTHER EMMETT HOLT

Dr. L. Emmett Holt, who died in Peking, China, on January 14, 1924, will perhaps be longest remembered as the author of a book, "The Care and Feeding of Children," which, through twelve editions, has been for twenty-five years an authority in the homes, not only of the United States, but of South America and Europe, and in China and Japan, where it has been invaluable in medical missionary work.

Recognized as a physician of the highest rank and standards, his influence with his profession was invaluable in removing doubts concerning the value of popularizing health educaton. After the Child Health Organization program had grown up under his stimulating leadership, he enthusiastically joined with several directors of the American Child Hygiene Association, of which he had formerly been president, in bringing about an actual consolidation of these two great organizations in the American Child Health Association, of which Secretary Herbert Hoover is the president, and of which Dr. Holt served as First Vice-President from its beginning.

Dr. Holt was born on March 4, 1855, at Webster, N. Y.; was graduated from the University of Rochester in 1875, took his master's degree three years later, and, in 1880, was graduated from the Col-

lege of Physicians and Surgeons of Columbia University. Later, when his work had brought him fame, he received the honorary degrees of LL.D. from Rochester, and Sc.D. from Columbia and Brown Universities.

Dr. Holt's activities covered a wide field, but were devoted to a single interest. From 1890 to 1901 he was Professor of the Diseases of Children at New York Polyclinic, and from 1901, Clinical Professor in the Diseases of Children at the College of Physicians and Surgeons. At the time of his death, he was physician-in-chief at the Babies' Hospital, member of the Board of Directors and Secretary for the Rockefeller Institute for Medical Research, and Trustee of the University of Rochester. He was a member of the Association of American Physicians, retiring president of the American Pediatric Society, and a trustee of the New York Academy of Medicine.

He conducted important research on infant metabolism and was the author of a number of pediatric papers. His book on "The Diseases of Infancy and Childhood" has been the standard text book in pediatrics in the medical schools of the country.

Though nearly seventy years old, he went to China in August, 1923, as special lecturer at the Union Medical College in Peking, an institution maintained by the Rockefeller Foundation. His death is a loss, not only to the nation, but to the world, whose children he made it his mission to save and serve.

MEDICINE AND SURGERY

INTRACRANIAL BIRTH HEMORRHAGES

In the domains of medical and surgical endeavor there are often fields of interest that would tend to overlap if they were not sharply demarcated by the traditions of the specialists who cultivate them. Thus, one learns of occasional conflicts of view between the surgeon and the physician, each of whom surveys the situation under examination from the angle of his customary vocation. The master of an operative technic naturally thinks primarily of the relief of an objectionable condition, whereas his medical colleague may regard it preeminently with respect to prophylaxis. An illustration of such relative difference of interest in a problem has lately been pointed out by Ehrenfest[4] of the Washington University Medical School, St. Louis, in connection with the causation of intracranial hemorrhages of the new-born. Obstetricians, he remarks, naturally have the better opportunity of observing and studying the immediate, and especially the mechanical, causes of such injuries. They apparently have succeeded in revealing the exact mechanism in the origin of most of the more common types of cranial and intracranial lesions sustained by the child in the course of birth. Pediatricians, who, with the rarest exceptions, see these patients only later, have made valuable contributions, chiefly in regard to symptomatology. They have discovered the evident etiologic relation of in-

4. Ehrenfest, H.: The Causation of Intracranial Hemorrhages in the New-Born, Am. J. Dis. Child.26:503 (Dec.) 1923.

tracephalic birth hemorrhages to a reduced coagulability of the blood, rather frequently ascertainable in the new-born. Obviously, a correct understanding of the extent to which intracranial birth hemorrhages are traumatic in origin would be an invaluable guide to the obstetrician. There seems to be a widespread impression, if not actually a preponderant conviction, that the causation of the conditions here under discussion often involves factors having no direct relation whatever to labor. The explanations may be summarized under the vague designation of hemorrhagic disease beginning in intra-uterine life.[5] The fundamental fact is the possibility of asphyxiation in infants experiencing severe birth hemorrhage. Ehrenfest believes that undue emphasis is being placed on the hemorrhagic diathesis, and that the widespread significance of both artificial mechanical and physiologic trauma incident to birth is being overlooked. The more carefully postmortem examinations are made, the more frequently are evidences of unsuspected damage to the meninges and other structures adduced. The exact determination of the mechanical factors that may effect such traumatization properly attains a large importance in the development of obstetrics under conditions in which attention has been directed primarily, if not exclusively, to the possibilities of toxemia or blood anomalies in the maternal organism.—Jour. A. M. A., Feb. 2, 1924.

5. Munro, Donald, and Eustis, R. S.: Diagnosis and Treatment of Intracranial Hemorrhage in the New-Born, Am. J. Dis. Child. 24:273 (Oct.) 1922.

INVERSION OF THE UTERUS

A case is reported by Ralph W. French, Fall River, Mass. (Journal A. M. A., Nov. 10, 1923), in which soon after delivery an incomplete inversion of the uterus of the first degree had occurred. Although this diagnosis was considered, together with shock and hemorrhage, it was incorrectly ruled out. The patient's life, however, was saved by a transfusion. And within a month of the time that she had left the hospital the inversion had increased, protruded through the cervical opening, and become complete. Piccoli's modification of Kustner's operation was done without further difficulty. A glass stem pessary was inserted through the sutured cervix and kept in place until the day the patient left the hospital. Convalescence was uneventful, and she was discharged thirteen days after operation. On the day of discharge, the fundus could be readily felt bimanually in fairly good position; the vaults were free, and there was no flowing. When last examined, ten months after operation, the uterus was retroverted to the first degree, and the cervix was shorter posteriorly than anteriorly, otherwise the examination was not remarkable. Menstruation is regular, rather more profuse than formerly, and only slightly painful.

THE IMPORTANCE OF THE PATIENT'S POSITION IN STUDYING LUNG EXCURSION

To study the respiratory excursion of the anterior inferior or lateral aspects of the thorax, C. F. Hoover, Cleveland (Journal A. M. A., Nov. 10, 1923), says the patient

should lie on his back. The upright position should be assumed only to show the excursion of the posterior aspects of the thorax. If the examiner wishes to study respiratory movements of the costal borders for the purpose of gaining some conception of the contour of the median and lateral parts of the arch of the diaphragm, then it is still more abvious that all interference from the abdominal muscles should be avoided by having the patient lie on his back with the abdominal muscles relaxed; for there is exhibited in the costal border movements a very accurate index of the balance of power between diaphragm and intercostals. The costal margin is composed of the ends of the ribs with their connecting cartilages; so each costal segment of the borders portrays the movement of the end of its respective rib. The force, extent and direction in which each segment moves reveal with remarkable accuracy any alteration in the balance of power between the intercostal muscles and that part of the diaphragm attached to the end of the ribs in question.

FUSION IN SCOLIOSIS

Henry Bascom Thomas, (Chicago (Journal A. M. A., Nov. 10, 1923), performs the Hibb's operation in these cases; but in order to increase the ankylosis he uses an osteoperiosteal graft for additional support. The osteoperiosteal graft is a graft of periosteum with a thin layer of underlying bone which is easily moulded to the parts requiring support. Its use for reinforcement in cases of scoliosis has produced especially gratifying results when additional bone is required in a given case, and when it is desired to reinforce the foundation made with the neighboring bone. Often the spinous processes are small, and therefore do not yield sufficient bone. In other cases, the patient may not be suited physically for the more severe transplantation method in which large pieces of bone, including the cortex, are removed from the tibia. Under such circumstances, the use of the osteoperiosteal graft is particularly indicated. Small grafts of periosteal compacted material, one for the interval between each spinous process base, are placed so that wafer graft covers the entire posterior disk space and overlaps the neighboring bone. The result is a more even and symmetrically stronger support than the fusion alone, which is often too strong in one area and too weak or insufficient in another. The postmortem examination of one case in which this type of graft was used showed a remarkable uniform distribution of bone, with surprising strength. The outcome in these cases Thomas says seems only fairly encouraging. Less so in a corrective effect on the rotation deformity than on the curves. He is less optimistic than the reports on prognosis made by Hibbs, Kleinberg, Whitman, Forbes or MacLenan would indicate.

SYNOVECTOMY OF THE KNEE JOINT IN CHRONIC ARTHRITIS

Ellis Jones, Los Angeles (Journal A. M. A., Nov. 10, 1923), reports twelve cases of chronic arthritis of the knee joint in which the synovial membrane was dense and thickened, and in which there was evi-

dence of trauma in almost every joint. In several cases, extensive erosion of the articular surfaces of the condyles was present, the articular surface of the tibia being relatively smooth. Adhesions were commonly found between the synovial folds in the lateral culdesacs of the superior joint. Synovial fringes, fibrillation and derangement of the menisci together with hypertrophy of the alar ligaments and retropatellar pad, were almost constant findings. Pathologic reports showed chronic inflammatory tissue. Cultures were negative and micro-organisms absent in stained specimens. Restoration of painless function occurred in every case after a synovectomy was performed. Relapse occurred in one case, badly selected, and recovery followed appropriate antisyphlitic treatment. Although synovectomy in the treatment of the chronic knee joint has distinct value, it must be definitely recognized that its application is limited and must be largely directed to the relief of a disabling condition only after persistent conservative methods have failed.

ABDOMINAL SURGERY WITHOUT DETACHED PADS AND SPONGES

The essential feature of H. S. Crossen's, St. Louis (Journal A. M. A., Nov. 10, 1923), method is the substitution of a long gauze strip for the ordinary detached sponges, the greater part of the strip being always outside the abdominal cavity. The strip is 10 yards long. Two strips are made by dividing the yard-width of gauze in the center and folding each half longitudinally to six thicknesses. Each strip is therefore 10 yards long, about 3 inches wide, and has six thicknesses of gauze. For protection and convenience in handling the strip is packed into a small muslin bag, 5 inches wide and 10 inches deep. The end of the strip is stitched to the bottom of the bag, and the strip is then packed into the bag in such a way that it may be pulled out a little at a time, as needed. The filled bags are sterilized and are then ready for use. At operation, the bottom of the bag is clamped or pinned to the abdominal sheet, and the gauze strip is pulled out a little at a time as needed for sponging.

A CONTRIBUTION TO THE STUDY OF PYELITIS IN PREGNANCY

According to Frederick Howard Falls, Iowa City (Journal A. M. A., Nov. 10, 1923), dilatation of the ureter, and edema of the mucosa of the bladder and ureter, together with an antiperistaltic action of the ureter, probably play an important predisposing part in the causation of pyelitis of pregnancy. Bacteriolysins and agglutinins are increased in the blood of most patients who are reacting clinically to this infection, and these antibodies are transmitted to the fetus. This acquired immunity has an important bearing on the failure of these patients to develop puerperal sepsis. Caesarean section should not be practiced to avoid contamination of the uterus by infected urine, except, possibly, in cases in which it can be demonstrated that the usual antibody formation is lacking. Recurrence of the symptoms may be totally absent in succeeding preg-

nancies, and this may be due to the immunity developed during the primary pregnancy. The prognosis for the fetus is not favorable, owing to abortion, prematurity or underdevelopment in a considerable proportion of the cases.

NORMAL STANDARDS IN THE TREATMENT OF ONE HUNDRED CASES OF DIABETES WITH INSULIN

Joseph H. Barach, Pittsburgh, (Journal A. M. A., Feb. 2, 1924), emphasizes the fact that in determining the diet of the diabetic patient, three primary needs must be met: First, caloric requirement; second, maintenance of protein requirements of the body; third, if the carbohydrate, protein and fat are given in wrong proportions, certain diseased states of the metabolism—ketosis—will follow with deadly effects. Present-day authorities on metabolism are generally agreed that 1 gm. of protein per kilogram of body weight is a safe protein ration. The largest amount of carbohydrate is given that the patient can tolerate without glycosuria and hyperglycemia. Sufficient fat must be given to meet the caloric requirement of the patient avoiding large amounts which predispose to ketosis. The total glucose in these diets is estimated by adding the carbohydrate plus 58 per cent. of the protein plus 10 per cent. of the fat. Ladd and Palmer have adopted the simple ratio of 4 gm. of fat for each gram of carbohydrate in the diet. That 58 per cent. of the protein is directly available as carbohydrate has not yet been proved to the satisfaction of all workers in metabolism. Every-day experience with diabetic patients has shown Barach that the nervous make-up of diabetic patients of the same age, height and weight is an important factor in determining the food requirements for active life. The various formulas now in use do not and cannot include this variable factor, and therefore are not as applicable as they may seem. Barach believes, with Allen, that the arbitrary rule of estimating the metabolic needs of the diabetic patient by theoretical calculations is inaccurate, but he does not lend himself, as Allen does, to guess at the diet. In the absence of a better method and one which is beyond criticism, Barach follows the normal diet as near as the patient's diabetic state will permit. So-called normal diets, based on municipal statistics, are on the basis of carbohydrate, 67 per cent; protein, 16 per cent, and fats, 17 per cent of the total. For the needs of the hospitalized ambulatory patient 30 calories per kilogram of body weight is allowed. The diabetic patient cannot assimilate the normal amount of carbohydrate. Experience in 100 hospital cases this year has shown that only one patient could take more than half the normal amount of carbohydrate. The diabetic patient does not do well on excessive protein. A normal diet offers about 1.25 gm. of protein per kilogram. Allowing a nearly normal amount of protein, 1 gm. per kilogram and as much carbohydrate as the patient can take, the remaining caloric requirement is furnished in fat. Being guided by the glucose output in the twenty-four hour specimen of urine, averaging this output every two or three days, the carbohydrate intake is reduced

from time to time as needed. At each reduction of carbohydrate, fat of equal caloric value is added. Ordinarily the patient is made sugar free in from six to ten days. If by this process of exchange the patient cannot be rendered sugar free or attain nearly a normal blood sugar on a satisfactory maintenance diet without the presence of acetone or diacetic acid in the urine, insulin is added in the treatment, enough being given to allow the patient a carbohydrate and fat intake for a good maintenance. At the time of leaving the hospital, the patient is usually taking 35 calories per kilogram, having gradually worked up to this point. A detailed survey of the first thirty-five patients showed that at the end of the year thirteen were taking more food, and in twenty it was thought best to continue the same diet. In one case it was found necessary to lower the total food intake. In these thirty-five patients twenty-seven are taking the same dosage of insulin. Seven are taking less insulin than they did when leaving the hospital, and in five it was necessary to increase the amount of insulin to maintain the total food tolerance and the desired nutritional state. In the five taking more insulin, intercurrent acute infections seemed to precede, if they were not the main cause, of the lowered tolerance. In these thirty-five cases there was a weight increase in twenty-five, ranging from 3 to 30 pounds (1.4 to 13.6 kg.). In eight there was no increase, and in two there was a loss of weight. Six patients gained 2 to 6 pounds (1 to 2.7 kg.). Nine patients gained from 5 to 10 pounds (2.3 to 4.5 kg.). Five patients gained from 10 to 20 pounds (4.5 to 9 kg.). Five patients gained from 20 to 30 pounds (9 to 13.6 kg.). Of these thirty-five patients, the outlook is good in twenty-six. These are practically without conditions. In nine cases the outlook is fair. Of those in whom the outlook today is only fair, it is evident that better conditions in the home and economic betterment would tend to place them in the more favorable class.

JEJUNAL ALIMENTATION IN TREATMENT OF PEPTIC ULCER

Ten patients were selected by H. L. Bockus, Philadelphia (Journal A. M. A., Feb. 2, 1924), for jejunal feedings. They had all the classical signs and symptoms of peptic ulcer of the stomach or duodenum with roentgen-ray confirmation. Nine were treated in the ward of a hospital with ordinary ward care without a special nurse. The time that has elapsed since treatment is too brief to warrant a final prognosis. However, 70 per cent of cases are clinical cures to date. Two of the remaining patients are still complaining of mild dyspepsia. This may be accounted for by the chronic inflammation of the gallbladder that was present. They have been free from ulcer symptoms. A patient with hookworm relapsed two weeks after treatment. There was no definite reduction in stomach acidity until after six months following the tube treatment. Several cases tested after nine months all showed a trend downward in acidity. Five out of six cases had slightly positive string tests immediately after treatment. The average peptic ulcer is probably not completely healed after the jejunal feedings. The persistence

of a positive string test together with hyperchlorhydria emphasizes the importance of careful management after the tube is removed. However, the preponderance of negative roentgen-ray findings after treatment would lead one to believe that the healing must be far advanced. In support of the latter contention, Bockus found complete absence of occult bleeding after treatment in 90 per cent of cases. The other patient had one very weakly positive stool after treatment, and two subsequent negatives. Bockus considers jejunal alimentation a valuable adjunct to the medical treatment of peptic ulcer. The patient can be rendered symptom free without much loss of weight in a shorter period of time than by following one of the other methods. At the termination of the jejunal feeding, the patient should be dieted and the stomach acidity treated with alkalis until the gastric chemistry approaches normal. The impression that two weeks of bowel feeding constitutes a cure has subjected this method to justifiable criticism. As a method of starting a medical cure, it compares favorably with any other plan and has the advantage that it required less time.

TREATMENT OF EMPYEMA

Ralph Borene Bettman, Chicago (Journal A. M. A., Feb. 2, 1924), describes a closed method of treating acute empyema which is a modification, worked out and put into routine form by Greensfelder, of the army trocar method. The abscess cavity is located with an aspirating needle, a trocar is then introduced, and after the stilet has been withdrawn, the catheter, clamped at its funnel end, is threaded through the sheath of the trocar. Great care must be taken in the selection of the catheter. It must fit snugly, so snugly that it requires a lubricant, such as sterile olive oil, to assist its passage. This is very important. Unless the catheter fits snugly into the sheath of the trocar, it will not fit snugly into the slightly larger wound, and air will soon gain access into the chest cavity. The after-treatment consists of repeated aspiration of the empyema cavity and the injection of surgical solution of chlorinated soda (Dakins' solution). Bettman advises aspirating the pus every two hours and then reinjecting into the cavity a quantity of the solution equivalent to about one third of the amount of pus aspirated. He emphasizes the necessity of liquefying the pus and plastic fibrinous exudate. In order to be sure that the catheter reaches well into the cavity, at the time of its insertion an excess length is usually threaded through the trocar. Contrary to general opinion, the catheter, instead of dropping down into the empyema cavity, usually slides upward along the collapsed lung toward the apex. As the cavity is drained and the lung expands, the catheter soon lies between the two layers of pleura. In this position pus can no longer be aspirated. It is necessary to withdraw the catheter only a few centimeters to reestablish drainage. The treatment is ended and the patient is pronounced cured when all symptoms have subsided, when bacterial counts on the fluid aspirated from the chest show this fluid to be sterile, and when the cavity has been

obliterated. The last mentioned is most important. It is essential that during the convalescence the best of general hygienic care be given the patient. Breathing exercises are insisted on. Woulfe blow bottles are used. Calisthenics are ordered to overcome tendencies toward scoliosis. Fresh air and sunlight are prescribed in as large doses as a Chicago winter will supply.

ACUTE PANCREATITIS WITH EROSION OF THE SPLENIC ARTERY AND FATAL HEMORRHAGE.

From Jan 1, 1918, to Aug. 31, 1923, the office of the chief medical examiner of the city of New York handled 64,322 cases. Among this number there were approximately 28,000 deaths from violence and a little more than 700 following abortions. About 9,500 necropsies were done. Among all these deaths only twenty-one—including the case reported by G. L. Moench, New York (Journal A. M. A., Feb. 2, 1924)—were due to acute pancreatitis. As far as the etiology of these cases of pancreatitis is concerned, not one was due to a traceable violence; in three there was a history of drinking; in four there were gallstones in either the gallbladder or the common duct, and in three, blocking of the pancreatic duct or ampulla of Vater by gallstones. In two other necropsies the pancreas and duodenum were bile stained. The symptoms in the individual patients were generally those described as typical: sudden, sharp pain, tenderness and rigidity in the upper abdomen, shock and collapse. The deep cyanosis, also regarded as typical, was not present in most cases. The case reported is the only one among the total number of more than 64,000 deaths in which the fatality was due to a rupture of the splenic artery. The only case approaching it is one in which death followed the rupture of an aneurysm of the renal artery. The history of the patient is unusual in that the typical symptoms were absent and no signs referable to the upper abdomen were present, so that a tentative diagnosis of ectopic gestation was made despite the fact that the patient had been a widow for five years. This diagnosis was further strengthened by vaginal bleeding which, after the necropsy, may possibly be explained as a leakage through the tubes, both of which were patent. What caused the pancreatitis, however, can only be guessed at. Because of the bile stain present on the pancreas it is perhaps not unreasonable to assume that some obstruction to the biliary flow was the original causative factor and that a stone, if present, either was small and overlooked, or had passed before the necropsy was performed.

PHENOLTETRACHLORPHTHALEIN LIVER FUNCTION TEST

Because Piersol and Bockus, as well as others, have demonstrated that the appearance time of the dye in the duodenal tube is proportional to the total amount of dyestuff excreted in two hours, George Howard Hoxie, Kansas City, Mo. (Journal A. M. A., Feb. 2, 1924), tried to use this appearance time as the criterion for his tests. He has tried to compare the results obtained in this way with those of the

Rosenthal method of withdrawing blood from another vein and examining it for the dyestuff. This report covers 164 tests on 135 patients. Patients were selected for the tests whose symptoms indicated a possibility of trouble in the right upper quadrant and, therefore, includes patients with whom the final diagnosis showed such conditions as pyelitis, cholecystitis, duodenal ulcer and hepatitis. The results obtained indicate that one test by the duodenal tube is not sufficient to give conclusive evidence as to the condition of the liver and biliary functions. On the other hand, repeated tests do seem to give figures which indicate the relative efficiency of that apparatus.

THE LENS AS SEEN WITH THE GULLSTRAND SLIT LAMP AND CORNEAL MICROSCOPE

By carefully considering the facts presented, Arthur J. Bedell, Albany, N. Y. (Journal A. M. A., Feb. 2, 1924), asserts that it is possible to observe embryologic, physiologic and pathologic lens changes. It is essential that the technic of examination be mastered and that the changes noted be given their proper value. The visualization of cataract formation is so real that, although heretofore the lens has been the most difficult part of the eye to study pathologically, it is now comparatively easy. To see a cataract develop in a recent detachment of retina proved a most instructive experience, for first there was a faint posterior cortical haze which increased in density and surface involvement, and then the anterior cortex showed many oil globules and fan-shaped opacities. Finally, the entire lens was milky white. The economic importance of lens opacity is so great that any aid in the elucidation of cause must have an influence of wide range. The slit lamp makes it possible to study lens changes so completely that it may safely be said that, within the next ten years, the therapeutic sphere will be greatly enlarged.

INDUCTION OF LABOR

This paper is based on a study of 20,000 cases delivered during the eleven years from 1909 to 1920. The series includes 340 cases in which labor was induced or aided by mechanical means. Of the latter, 290 cases have been analyzed by Samuel J. Druskin, New York (Journal A. M. A., Feb. 2, 1924), in detail. To induce labor, a method first must be safe, and secondly, Druskin says it must produce the desired result in a reasonable length of time. Of the four methods usually mentioned, none but resort to mechanical means has been found to comply with these requirements. Among the mechanical means recommended are: (1) rupture of the membranes; (2) packing the vagina and cervix with gauze; (3) introduction of a bag (colpeurynter) into the vagina; (4) introduction of one or more catheters or bougies into the uterus, and (5) introduction of a bag (metreurynter) into the uterus. The first three have rarely been used by Druskin because they are unreliable and inefficient. In eighty-one cases in which the catheter was used, it failed to produce labor pains ten times, or 12.25 per cent. In a series of eighty-four cases in which the bag was used, it failed only twice, or

2 1-3 per cent of the cases, so that the bag proved 5.25 times as reliable as the catheter. The average duration of active labor with the bag method is one-half that of the catheter method. There was one death due to sepsis in the series of 290 cases. This was a case in which the catheter was used. No cases of sepsis were attributable to the bag method. There was no displacement of the fetal parts except when a very large sized bag was used. Druskin has therefore adopted the bag as the best means of induction of labor in cases of, (1) premature rupture of the membranes, (2) transverse presentation, (3) breech presentation, (4) prolapse of the cord, (5) poorly dilatable, rigid cervix, and (6) placenta praevia and premature separation of the normally situated placenta. The action of the bag can be enhanced by administering a small dose of pituitary extract, later repeating the dose if necessary. The action of the bag is more certain when a large dose of castor oil (2 ounces, 60 c.c.) is administered several hours previously. In cases of hydramnion Druskin has found it more desirable first to rupture the membranes to permit the escape of a fair amount of fluid, and then introduce the bag. Recently he has adopted a method that has all the advantages of the bag method and the catheter method combined and none of their disadvantages. He uses sterilized urinary bladders of pigs or sheep, filling them with a solution of glycerin. The advantages are: 1. They are easy of introduction, even through a small opening. 2. They are dilatable, and increase in size the longer they remain in the uterus. 3. They produce osmosis in the surrounding or contiguous parts of the cervix, absorbing fluid from the surrounding tissues. 4. They soften the cervix. 5. Pains set in early and continue effectively.

THE PERNICIOUS OR HEMOLYTIC AENMIA OF PREGNANCY

Two cases are reported by V. C. Rowland, Cleveland (Journal A. M. A., Feb. 2, 1924), and attention is directed to the fact that the hemolytic anemia of pregnancy closely resembles pernicious anemia; and, although the primary mortality is high, the anemia, once overcome, does not recur. The anemia comes on insidiously, and may become apparent during the latter months of pregnancy or during the puerperium. Labor is apt to come on prematurely and is characteristically short, relatively painless and with a minimum of bleeding. Stillbirths in neglected cases are frequent, and there may be sudden collapse and death of the mother after parturition. Transfusion and arsenical treatment should be carried out vigorously to tide the patient over the critical period. All toxic pregnant patients should be examined for anemia. The condition should be more widely known, especially among obsterticians, so that an early diagnosis may be made and preventive treatment carried out.

EARLY CONVULSIONS IN EPILEPTICS AND IN OTHERS

Hugh T. Patrick and David M. Levy, Chicago (Journal A. M. A., Feb. 2, 1924), compared all early convulsions occurring in a group of 500 epileptics and a group of 752 "unselected" infants and children. The epileptics were private pa-

tients with idiopathic epilepsy and no other clinical findings. The unselected group consisted of infants and children seen at better baby conferences in one urban and two rural communities in Illinois. Both groups are representative of "private practice," as contrasted with institutional and dispensary groups. Ninety-eight cases, or about 20 per cent of early convulsions, were found in the epileptic group; thirty-two cases, or about 4 per cent, in the unselected group. The frequency of early convulsions in the epilepsy group was in a general way inversely proportional to the age at the time of the first epileptic convulsion. According to our records, early convulsions are three times as frequent when the epilepsy begins in the first decade of life as when it begins in the third decade. Probably this is largely due to factors such as the patient's poor memory, or incompleteness of data due to the mother's absence at the time of history-taking. We believe the figure twenty to be a low estimate. The presence of early convulsions, especially if repeated, per se multiplies the individual's ordinary chances of epilepsy by at least five —in itself a scarcely insignificant risk. There is a prepondering number of single early convulsions in the nonepileptic group (65 per cent of the total), and of multiple convulsions in the epileptic group (76 per cent of the total). The majority of early convulsions in the nonepileptic group (75 per cent) occur between 6 and 17 months, and most of these are between 11 and 13 months. In the epileptic group, 63 per cent of the early convulsions occur under 6 and over 17 months; only 37 per cent between 6 and 17 months. As contrasted with the "epileptic" early convulsions, the nonepileptic are typically brief, generalized, and not followed by confusion or prolonged stupor. The same types of assigned causes occur in the two series, with teething highest in frequency in the nonepileptic; trauma and "reflex" causes in the epileptic, especially birth trauma. In the latter group there is a contrasting high percentage of "unassigned causes." Regarding sex distribution and incidence of epilepsy in the family history, there is a definite similarity in the two groups. Within the unselected series, the group with early convulsions contains relatively seven times as many families with instances of early convulsions in relatives as does the the remainder, and a much higher frequency of epilepsy. The family histories of all the groups studied do not significantly differ in the frequency of miscarriages, stillbirths, deaths in infancy or forceps deliveries. The authors conclude that convulsions in infancy and childhood not epileptic, spasmophilic or symptomatic of a gross brain lesion, are evidence in themselves of the individual's increased chance of later epilepsy. There is no definite "interval of safety" beyond which epilepsy will not occur.

RESTRICTION OF RATE OF FLOW AND INTERCHANGE IN CAPILLARIES BY VASOCONSTRICTOR DRUGS

In this report, Beverly Douglas, Cincinnati (Journal A. M. A., Feb. 2, 1924), details the results of quantitative studies in support of his theory that by means of local pressor drug action on the superfi-

cial vessels of the dermis it is possible, in practice, to prevent the absorption of effective doses of a symptom-producing substance locally applied. Epinephrin chlorid, when administered locally in proper concentration on the ear of the rabbit and guinea-pig, is shown to produce a peripheral vascular block so complete as to prevent absorption of a toxic dose of strychnin sulphate in saturated solution. In similarly prepared control animals, enough strychnin was absorbed in identical periods of time to produce convulsions in every animal and death in a majority. The effect of mechanical stimulation is thus ruled out. Concentrations of epinephrin chlorid up to 1:10,000 are efficacious in the foregoing experiments. Weaker solutions are not. A single application of the vasoconstricting drug for three minutes is shown to prevent absorption of strychnin for thirty-two minutes. After intermittent applications of epinephrin for two hours and ten minutes, it is still active in preventing the absorption of strychnin. The vasoconstriction is therefore not relaxed in the period of time during which an effectime concentration of epinephrin is present. Swelling of tissues and decreased permeability from mechanical causes cannot account for these results, as each control animal developed symptoms when physiologic sodium chlorid solution was substituted for epinephrin. Procain exerts a synergy with epinephrin in preventing absorption, though in the concentrations used its effect is slight. Amyl nitrite relaxes epinephrin constriction and allows strychnin to be absorbed subsequently.

POSTOPERTIVE PNEUMONIA

Herman Elwyn, New York (Journal A. M. A., Feb. 2, 1924, has investigated the occurrence of postoperative pneumonia following operations under general and under local anesthesia. Among 1,734 patients to whom a general anesthetic was administered fifty-two developed pneumonia, an incidence of 3 per cent. Of 399 patients on whom some form of operation was performed under local anesthesia, eleven developed postoperative pneumonia, an incidence of 2.7 per cent. Among the sixty-three cases of pneumonia there were nine deaths that were due, wholly or in part, to pnuemonia, a mortality of 14.28 per cent. Operations on the spleen have the highest incidence of postoperative pneumonia 28.5 per cent. The next highest figure is in operations on the stomach, 14.2 per cent. It is mainly intra-abdominal operations that are followed most often by pneumonia; and of these, especially, operations on the gastro-intestinal tract, appendix, hernia, gallbladder and exploratory laparotomies are apt to be followed by pneumonia. Operations on the kidney are less often followed by pneumonia, while the figures in operations on the bladder are a little higher. The low incidence of pneumonia following pelvic-gynecologic operations is remarkable. In this group, pneumonia occurred only twice in 358 operations. Only one case of pneumonia occurred following operations on the extremities. It is very doubtful whether the pneumonia in this instance had anything connected with the operations; it followed a Thiersch skin grafting under nitrous oxid and oxy-

gen anesthesia. Seven days later the patient had a chill, the temperature rose to 106 F., and signs of consolidation developed over the left lower lobe. It proved to be an ordinary lobar pneumonia, and was probably an intercurrent infection. Operations on the head, neck, spinal cord and chest (operations on the lung itself are not included in these statistics) were not followed by pneumonia in a single instance. Pneumonia occurs following operations on the abdominal viscera even under local anesthesia. The lower lobes of the lung are the ones usually affected in postoperative pneumonia; the right lower lobe is more often involved than the left. Of great interest is the fact that fifty-two cases of pneumonia out of a total of sixty-three cases occurred within three days after operation. Postoperative pneumonia occurs at all ages, and the time of the year does not seem to influence its occurrence. Two cases of postoperative pneumonia were complicated by massive collapse of the lung, proving the occurrence of massive collapse of the lung following operations on the abdomen. As the collapse of the lung disappeared, the signs of pneumonic consolidation became more definite. These observations strengthen Elwyn's belief that the greater number of cases of postoperative pneumonia are produced in this manner. Following operations on the abdomen there occur small or large areas of atelectasis or collapse in the lungs, especially in the lower lobes. When a bronchitis is present at the time of the operation, or irritation by the anesthetic prepares the bronchi for infection, any such infection is liable to spread to the atelectatic lung, with the production of pneumonia. How the collapse of the lung is produced is unknown. It may possibly be caused by a sudden closure of all the bronchioles in an area of the lung, as a reflex from the gastro-intestinal tract by way of the vagus. The occurrence of massive collapse of the lung and of postoperative pneumonia mainly after abdominal operations, and especially after operations on the gastro-intestinal tract gallbladder, appendix and hernias, is in favor of this hypothesis. By placing the administration of the anesthetic in the hands of a trained anesthetist, by postponing operations whenever possible in cases in which there is acute respiratory infection until the infection has subsided, and by exercising special care in cases in which there are emphysema and chronic bronchitis that constitute the most important predisposing factors, the occurrence of postoperative pneumonia can be reduced to a minimum.

TYPHOID IN THE LARGE CITIES OF THE UNITED STATES IN 1923

The Journal presents its twelfth annual survey of typhoid fever mortality in the cities of the United States that had more than 100,000 population in 1920. Sixty-nine cities fall into this group. As has been the case since 1920, every one of the twelve largest cities (Group 1, more than 500,000 population) had a typhoid death rate under 10. For the first time since these summaries were begun, every city in the group had a rate under 5. Although 1922 marked the lowest point heretofore reached for several cities in the group, 1923 shows still further im-

provement. Seven of the twelve cities had less typhoid in 1923 than in 1922. The nine cities in Group 2 (from 300,000 to 500,000 population) make an especially creditable showing, only three of the nine recording a higher rate than for the year before. New Orleans had a particularly low rate (8.8), and Milwaukee, with only chlorination standing between it and a water supply at times highly polluted, records the very low rate of 1.0. In Group 3 (from 200,000 to 300,000 population), Providence, with only two deaths, takes a long step toward becoming the banner city of the decade, with Yonkers and New Bedford its only competitors. Louisville breaks all its records with the very low rate of 3.5. In Group 4 (from 150,000 to 200,000 population), Syracuse had the lowest rate, 2.2, with Worcester a close second with 2.6 per cent. In Group 5 (from 125,000 to 150,000 population), Hartford, Conn., records but one death, the lowest death rate ever recorded in that city. Group 6, (from 125,000 to 150,000 population), contains the only city (Norfolk, Va.) without a single typhoid death for the year 1923. Last year there were three in this class. New Bedford and Yonkers have this year each but a single typhoid death against them. Reading, Pa., which for some years past had had one of the highest rates in this group, has dropped this year to 2.7. The case of Trenton is again worth noting; for the second year in succession it has a typhoid rate of 11.8, which places it in the lowest rank together with other four cities, all of them in the South. The sixty-nine cities with typhoid records for the last four years show a slight typhoid reduction in 1923 as compared with the preceding year. While the actual percentage reduction has slowed up, it is evident that improvement in the typhoid situation in many cities is still taking place. The Journal believes that the end is not yet reached, and a still further diminution in typhoid in American cities will be noted within the next few years. It is not likely, however, that the decline will be as rapid or as marked as it has been in the past decade, and it seems probable that a reduction much below the point now reached will come about only when a curb is put on rural typhoid throughout the country. Eradication of rural typhoid is a difficult but by no means impossible task, and it is encouraging that many health officers throughout the country have set their hands to this undertaking.—J. A. M. A.

"KILLED BY VACCINATION"

The caption of this comment is the title of an article appearing in that haven of medical quackery and fantastic quasi-medical fads, Physical Culture. The article is by Simon Louis Katzoff of Bridgeport, Conn., who, according to Physical Culture, is a "graduate in law, pharmacy and medicine, a prominent physician, psychologist and author." The article opens with a typical piece of "sob stuff." According to Katzoff, one of the most beautiful children he had ever known was vaccinated and some time thereafter (no names, dates or figures of any sort) gradually faded away, "grew rapidly weaker and weaker —and died." The death certificate showed that this child died of pneu-

monia, but Katzoff knows better; she died by vaccination! And this is not the only instance Katzoff knows of in which deaths have followed vaccination; he knows "plenty of them." So much for the "heart interest" element of Katzoff's article. The rest of it is merely a rehash of the antivaccination propaganda that has been put forward for years by the professional anti-vaccinationists and quacks who think they can help their own schemes by discrediting scientific medicine. Simon Louis Katzoff, readers of The Journal will remember, is the "First Vice-President and Chairman of the Council on Health and Public Instruction" of that egregious organization, the "American Progressive Medical Association," whose unsavory menage was dealt with in the Propaganda department, December 15 last. Katzoff was born in Russia in 1890, and holds a diploma from the Georgia College of Eclectic Medicine and Surgery. He also holds a license from the Eclectic Board of Georgia and from the Eclectic Board of Connecticut. What a license from the Eclectic Board of Connecticut means, the medical profession and the public are gradually finding out. Katzoff is recently reported in the newspapers to have been called before the Special Grand Jury that is investigating the diploma mill scandal that smells to heaven. It would be interesting to learn what schools graduated Katzoff in law and pharmacy. To call Simon Louis Katzoff a "prominent physician, psychologist and author" is to play tricks with the English language. The man is unknown to scientific medicine except in unsavory connections. His tirade is worthy of notice only because faddists of the type that read Physical Culture form numerically an important portion of our population.—Jour. A. M. A., Feb. 16, 1924.

URETERAL STRICTURE

A case, illustrating the influence of ureter stricture on the formation of urinary calculi and on recurring calculi is reported by Guy L. Hunner, Baltimore (Journal A. M. A., Feb. 16, 1924), and the whole subject of urinary calculi is reviewed. In Hunner's experience, ureteral stones are usually found in one of two areas, namely, from 3 to 5 cm. below the pelvic brim, and from 2 to 5 cm. above the bladder, in the very areas in which nearly all strictures occur. Many ureteral stones found above the pelvic brim are undoubtedly stones which have formed in a stricture area, and because of dilatation above the stricture they have become freed and floated upward as migrating stones. Some bladder stones form in a ureteral stricture area and are forced out into the bladder. Such stones in women are usually passed spontaneously. Many ureteral stones have a wide, tortutous channel on one side through which urine can pass with the utmost freedom. Merely from the patient's history and urinalysis no one can decide whether a given attack is due to stricture or to calculus. Some patients give a history of discomforts located on one side only, and investigation shows a stricture on that side causing more or less damage to the upper urinary tract. On taking a pyelogram of this side, a stone shadow is seen in the opposite kidney which

has been free from symptoms, and further investigation reveals stricture on this symptomless side. Hunner makes it a practice not to operate for a stone in the kidney without a thorough investigation of both ureters for stricture; and, as bilateral stricture is usually found in such cases, both ureters are well dilated before the operation. Many stones in the kidney originate from an infection of the urine. In what percentage of cases this urinary infection occurs with the primary damage to the urinary tract, and in what percentage there may have been a previous lesion in the tract, leading to stasis of the urine before it has become infected, are problems for future investigation. In the case reported, a patient, a woman, aged 36, was the victim of recurring calculous disease of both kidneys and both ureters, necessitating many operations and the removal of one kidney and not eventuating in an apparent cure until the ureteral strictures were recognized and dilated. Hunner is convinced that this case proves the etiologic relationship between stricture of the ureter and urinary calculus. He contends that if this patient had been seen by some one familiar with ureteral stricture work when her first symptoms of cystitis, such as polyuria, dysuria and hematuria, began six years before her first hospital admission, the diagnosis of ureteral stricture could have been made promptly, and proper treatment would have prevented the formation of the first ureteral stone. Had the patient not been seen until her first hospital admission, and had the importance of ureteral stricture in stone formation been appreciated at that time, the patient would have been followed with ureteral dilations after the passage of the ureteral stone. If, at the time of her first admission, the fact that ureteral stricture is almost always bilateral, had been appreciated and if the evidence of a former inflammatory condition about the lower left ureter, as furnished by the shadows of phleboliths or calcified glands in this region had been noted, Hunner would have begun ureteral stricture dilations on this side, in spite of the fact that the patient had not as yet had symptoms on the left side. To these ureteral treatments would have been added the attention to focal infections, and it is almost certain that instead of being a much mutilated woman with only one kidney and a questionable prognosis for the future, this patient would have enjoyed normal health and would now be the possessor of two good kidneys.

EFFECT OF AURICULAR FIBRILLATION ON FUNCTIONAL ABILITY OF THE HEART

The use of graduated exercise to build up the reserve power of the heart impatients with auricular fibrillation has been an interesting experiment, for Theodore B. Barringer, Jr., New York (Journal A. M. A., Feb. 16, 1924), and the results, a few of which are reported, may throw some light on the problem of handling these patients. One case in particular offered very convincing evidence that the reserve power of the heart can be increased much more when the normal pacemaker is in control than when the auricles are fibrillating. There is one class

of patients with auricular fibrillation that is helped decidedly by graduated exercise. They are young or middle aged, have no valve lesions, and give no history of heart failure. Their chief complaint is palpitation during physical exercise or mental excitement, but their cardiac reserve power is not markedly decreased. There is another class of patients suffering from auricular fibrillation in whom the cardiac reserve power is much decreased, whom it is necessary to digitalize, and who can exercise but little on account of the resultant tachycardia. Barringer has seen two patients with heart failure accompanied by auricular fibrillation in whom the reversion to flutter in one patient and to sinus rhythm in the other, as a result of an edema which had persisted in spite of much digitalis and dieting. He is of the opinion that his cases furnish significant clinical evidence in support of the view that auricular fibrillation influences the heart's efficiency detrimentally, whether the heart is recovering from failure (insufficiency) or whether we are endeavoring to increase the cardiac reserve power of a patient free from any evidence of failure.

NASAL OPERATIONS IN BRONCHIAL ASTHMA

In analyzing ninety-four consecutive cases of bronchial asthma that have been under his personal observation for a number of years, Morris H. Kahn, New York (Journal A. M. A., Feb. 16, 1924), had the opportunity to notice the effects of nose and throat operations on thirty-three of these. In fifteen cases, relief of nasal obstruction was obtained. In two of these, atrophic rhinitis resulted as a serious sequel. In the other cases, the operation was of no benefit. In most cases the improvement that resulted, even as concerned the local condition, was only temporary and incomplete; and in many cases the local condition for which the operation was performed recurred. Even in patients in whom there was definite relief of obstruction and in whom nasal breathing became free, the asthma was not influenced.

THYROIDECTOMY: FURTHER MODIFICATION IN TECHNIC

C. A. Roeder, Omaha, (Journal A. M. A., Feb. 16, 1924), carries the Kocher incision through the keep fascia, which necessitates a ligation of the anterior jugular veins which lie in this layer. The flap thereby contains one more layer and is easily reflected by sharply dissecting the fascia from the muscles beneath. The next step is the exposure of the lobe to be resected, which is done by incising, directly over the lobe, through the bodies of the sternohyoid and sternothyroid muscles, one inch or more lateral to the midline. This lateral incision through the bodies of the muscles gives ample exposure for removing the isthmus and the superior lobe, even if the latter lies extremely high or behind the trachea. The external border of the gland is easily exposed by outward retraction of these split muscles, and as the resection is carried toward the midline the isthmus is easily exposed by retracting the inner

border of this split muscle incision. If the opposite lobe requires resection, a second muscle splitting incision is carried through the bodies of the sternohyoid and sternothyroid muscles on the opposite side, the same distance from the midline. When drainage is necessary, small one-eighth inch rubber tubes are brought out through these lateral muscle split incisions and if removed within seventy-two hours they do not increase the line of the scar in the skin. Following the lobe resection, the split incision through the lateral muscles is loosely closed in two layers with 00 plain catgut, which allows these muscles more readily to return to their independent action, and in turn helps to hasten the normal extension of the neck. Exacting hemotasis is carried out on the inferior surface of the flap before the line of incision is closed with 0 plain gut, which passes through the deep fascia and platysma muscle. The flap heals readily with no induration beneath, and the patient is not forced to hold the neck flexed for a week or two as when the muscles are divided, extension being carried out freely within a few days. The thicker flap and undivided muscles also leave the platysma muscles sliding freely over the deep fascia as it normally does, preventing the wrinkled skin over the brawny induration. Following this technic the appearance of the neck is far more satisfactory than when the Kocher flap, the midline separation and transverse section of the deep muscles, together with midline drainage, are used.

SCARLET FEVER TOXIN IN PREVENTIVE IMMUNIZATION

The experiments reported on by George F. Dick and Gladys Henry Dick, Chicago (Journal A. M. A., Feb. 16, 1924), show that when persons, with positive skin tests for susceptibility to scarlet fever, are injected with suitable quantities of the toxic filtrate, they may develop a scarlatinal rash with nausea, vomiting, rise in temperature, and general malaise. These symptoms appear within a few hours after the injection, and disappear within forty-eight hours. Following this reaction, the skin test is negative, or only slightly positive. The short interval between the injection and the beginning of the reaction, compared with the incubation period of about forty-eight hours described in experimental scarlet fever, and the more rapid disappearance of the symptoms, indicate that the effect is produced by a soluble toxic substance rather than by a filtrable virus. The resistance to heat at temperatures ordinarily employed to kill bacteria is further evidence that we are dealing with a toxin. The similarity of the symptoms produced by the filtrate to those of scarlet fever, and the resulting modification of the skin test, indicate the production of some degree of active immunity to scarlet fever. The neutralization of the toxic substance in the filtrate by the blood serum of a person who had received injections of the filtrate indicates that the toxic substance is a true toxin, capable of forming an antitoxin.

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TUBERCULOSIS AS A MUNICIPAL RESPONSIBILITY

Public Address Delivered Under the Auspices of the Cabell County Medical Society and the Huntington Anti-Tuberculosis Association at Huntington, W. Va.

By PAUL H. RINGER, A. B., M. D.
Asheville, N. C.

I have chosen for discussion tonight a very broad subject, and one, in the treatment of which only the high spots can be touched. It has struck me that contributions to the cause of tuberculosis in a community have been looked upon more or less as a charitable offering coming in the same category as children's homes, associated charities, near-east relief, and other beneficent causes. I wish to show that this idea is false, and that the control and treatment of tuberculosis in a community should rank with a good water supply, good schools, an honest and fearless form of government, and far above an excellent fire department and paved streets.

Tuberculosis is both a medical and a social problem. As yet the medical profession has failed in its ultimate goal, the discovery of a cure. The medical profession however does know how to treat cases of tuberculosis and can aid the patient in bringing about an arrest of his disease. A favored few among the afflicted have the means to leave home and business and to seek the health resort, where they can devote twenty-four hours a day to the business of getting well. The number of individuals that can do this must however remain very small as compared with the total of those stricken. The vast majority must seek to recover in or near their homes. While climate represents one rung of the ladder that must be climbed to attain recovery, its non-essentiality is proved by the fact that the tuberculous are recovering from Maine to California and from North Dakota to Louisiana,

and also by the fact that there is no great discrepancy in the statistics to be obtained from the various health resorts as to their percentage of successes. Climate therefore being eliminated as an essential factor in recovery from tuberculosis, it becomes obvious that every state, every county or group of counties, and every community of over 40,000 inhabitants should take steps to care for their tuberculous unfortunates. Until the search for cure of the disease is successful, the tuberculosis problem is bound to remain as it is at present, more sociological than medical. We medical men know how to treat the indigent tuberculous individual, but half the time we do not see him until he is in a well advanced stage of the disease, and the other half of the time, when we do see him, we do not know what to do with him for it has been pretty definitely settled that the tuberculous patient cannot satisfactorily take the cure at home because of various disturbing and distracting influences which cannot be removed. It therefore becomes the duty and the responsibility of the community to provide ways and means for the detection of the tuberculous, and, subsequently, for their treatment and for the maintenance of their families while those afflicted are incapacitated.

Let us consider for a moment the frequency of tuberculosis. My friend Dr. John Hawes of Boston says in his excellent little book, "Tuberculosis and the Community": "We all know and if we do not we should know that tuberculosis kills more people every year in this country than were killed in all four years of our civil war. In other words, during the four years of the Civil War there were killed or died from wounds about 205,000 men, or 50,000 per year, while at present it is estimated that well over 150,000 persons die from tuberculosis every year in this country; that its toll of death is greater than that of all the infectious diseases of childhood combined; that one out of every nine persons dies of it; that someone dies of it every minute night and day; that the death rate from cancer is not nearly so great as that of consumption; and that even the terrible epidemics of infantile paralysis and influenza, against which the entire country has been up in arms, are almost mere details compared with what tuberculosis is doing slowly, quietly, and unobtrusively in our midst." No comment on this quotation is needed for its truth has been demonstrated beyond the possibility of doubt.

Let us now take a glance at the economic cost of tuberculosis and by contrast compare it with the cost of two common diseases, one medical and the other surgical, typhoid fever and appendicitis. A married man of 35 with a wife and three children becomes ill with typhoid. He is earning, shall we say, $40.00 per week and carries health insurance entitling him to $25.00 per week. He is incapacitated six weeks. He is paid no salary during his illness but his insurance helps out. He has a nurse for four weeks at $35.00 per week, $140.00. His insurance comes to $100.00, so he loses but $40.00 on that. His doctor's bill is $100.00 which he can pay by installments. He generally has a few hundred dollars in the savings bank or, if he has not, he can generally secure a loan from

friends. If he is destitute he can go to a hospital in which the rental of private rooms compensates for the free treatment in the wards and where he will receive his medical service gratis. All in all, he comes out about even.

The same man has acute appendicitis. He must go to a hospital, pay $35.00 weekly for his room, $100.00 to $150.00 to his surgeon, and in the ordinary case he is laid up two or three weeks, or he can go to the ward, pay $15.00 to $18.00 per week and have his operation done for $50.00 to $75.00 or, if destitute he need pay nothing, the rental of private rooms again compensating this hospital for the free treatment he is receiving. He is not seriously embarrassed financially and if so, but for a relatively short time.

The same man falls ill of tuberculosis. Here is a different proposition. Unless local provision is made for him by the community (the establishment of a sanatorium) he must go away, either to the state sanatorium, if there is one, or to a health resort. In the health resort his expenses cannot be less than $100.00 monthly. In the state sanatorium he can be admitted at a rate ranging from $45.00 to $64.00 a month. But he must remain there for at least six months, often more, and with no assurance that at the end of that time he will be able to resume his work. During these six or eight months his wife and children must be cared for and many of the cheaper forms of health insurance have a clause excluding tuberculosis. If this man has been earning $40.00 per week, there is a loss of let us say thirty weeks, $1200.00. His family, to be supported, will cost at least $25.00 a week or $750.00. If on discharge from the sanatorium it is decided that he cannot resume his old occupation, perhaps one involving violent physical effort, he will have to seek another easier job. No one will pay full wages to a "lame duck" so he has to take what he can get, let us say $25.00 per week, insufficient for his maintenance. This is not a fanciful picture, it is the naked truth. Let it be multiplied throughout our land by 200,000 and we reach a truly appalling figure, and a conservative one at that.

Let us assume that this man dies of tuberculosis. The value of the average adult life to a community is conservatively estimated at between $1800.00 and $2000.00 per year. Now with higher prices and wages it would be more, but the lower estimate suffices for this illustration. If we estimate roughly that 150,000 die annually from tuberculosis we find the loss to the country to amount to $300,000,000.

The point in bringing forth these figures is to show that any money spent on the control of tuberculosis is a sound investment in the mere unsentimental terms of dollars and cents. We are doing better than we were. In 1905 $5,000,000 was spent on tuberculosis. In 1915 $22,500,000. There are now over 600 hospitals and sanatoria for the tuberculous in the country whose appropriation in 1920 was considerably over $20,000,000.

To give a general idea of the vast difference in accommodations for the tuberculous in the various states of the Union, I selected at random six states from various sections and after selecting them looked up

their provision for tuberculosis in the 1923 directory of the National Association. The states I chose were Massachusetts, Missouri, Ohio, Oregon, North Dakota, and Alabama. Here are the figures:

Massachusetts with a population of 3,600,000 has 3512 beds for the tuberculous, comprising five state sanatoria, six county sanatoria, eighteen municipal sanatoria, and ten private institutions. Ratio of beds to population 1:1025.

Missouri with a population of 3,-300,000 has 937 beds to be found in one state sanatorium, three public sanatoria, and three semi-private institutions. Ratio of beds to population 1:3553.

Ohio with a population of 5,027,-000 has 2,155 beds, in one state sanatorium, 12 public sanatoria and 5 private or semi-private sanatoria. Ratio of beds to population 1:2333.

Oregon with a population of 780,000 has 287 beds comprising one state sanatorium, one county sanatorium, and two private institutions. Ratio of beds to population 1:2717.

North Dakota with a population of 637,000 has 110 beds in one state sanatorium. Ratio of beds to popuation 1:5790.

Alabama with a population of 2,270,000 has 104 beds. No state sanatorium, one public and three semi-private institutions. Ratio of beds to population 1:21,826.

When we look at these figures and then realize that one person in every nine dies of tuberculosis, we can see how inadequate even the best of them are. I purposely omitted selecting any states portions of which are known as health resorts.

A community having determined to set about the control of tuberculosis in its midst, the next question is how to go about it. Organization is essential. An anti-tuberculosis society must be formed and the interest and support of all classes sought. Cooperation must be secured from the local board of health, but it has been found preferable not to entrust to that board the sole or full management of anti-tuberculosis work. More efficiency is obtained by having this the peculiar province of the anti-tuberculosis society. All desired information concerning the formation of such a society will be fully and freely given by the National Tuberculosis Association at its headquarters in New York and experts will be sent to give advice on the ground.

Certain preliminary steps are necessary in order to discover the cases of tuberculosis and also in order to care for them when discovered. These steps are:

1. A tuberculosis survey of the community.
2. A tuberculosis dispensary.
3. A municipal or county sanatorium.
4. The after-care of discharged patients.

By a tuberculosis survey is meant a thorough canvass of the municipality by nurses trained for this work with the view to discovering all cases of obvious tuberculosis, all suspects, to report on unfavorable housing conditions, and in short to take an inventory of the tuberculosis situation in the town Such a survey is highly desirable though it may not always be practicable. The National Tuberculosis Association will furnish minute details as to the method of conducting such a survey, its cost, etc., and will also

give literature indicating the value of the results obtained in the exhaustive survey conducted by it at Framingham, Mass. If one of the four steps above mentioned must be omitted, it is however the survey that should be left out.

The three other preliminary steps to really mastering the tuberculosis problem in a municipality are so closely related one to another that they really form one. There must be a place where cases can be diagnosed, and there must be a place where, when diagnosed, they can be treated These two institutions are the tuberculosis dispensary and the county or municipay tuberculosis sanatorium. In addition patients when discharged from the sanatorium must not be lost sight of.

The dispensary can be established at practically no cost. A portion of the dispensary of the City Hospital can be devoted to tuberculosis during certain hours of certain days in the week. Physicians will always gladly donate their services. Sputum examinations can be made in the hospital laboratory. X-Ray pictures when needed can be made in the hospital X-Ray room. No particular equipment is required in the tuberculosis dispensary that is not already present in the general dispensary. The patients are most frequently discovered by the district nurse while on her rounds. She may be employed either by the Board of Health or by the Anti-tuberculosis Society. Other cases will be diagnosed or suspected by the company doctor in mills or factories. It must be well advertised that the tuberculosis dispensary is a place where the poor will receive careful attention. In so many general dispensaries the man with a cough is given some cough mixture with the instruction to "come back next week and if you are not better I'll change the medicine." The tuberculosis dispensary must also be known as the portal of entry to the most important element in the municipal combat against existing cases of tuberculosis.

The Municipal Sanatorium

All the departments in the world will do no good unless there is some adequate place in which to treat patients for a period of several months. If the tuberculous patient must simply be returned to his home, it will be in all cases difficult and in most cases absolutely impossible for him to carry out his cure. I am well aware of the good results that have been obtained on the roofs and in the back yards of New York tenements and elsewhere; of the beneficial effects of "window tents" in enabling people to practically "sleep out," but all these are makeshifts and while not to be sneered at, in no way take the place of a satisfactory institution. The expense of the institution is of course the great stumbling block, but enthusiasm must be stimulated by free advertising, by a plain statement of the benefits to be derived by the community, of the saving in lives and money to the municipality, and of the educational value of such an institution. It must be emphasized that such a sanatorium need not be pretentious, certainly not at first. This is not the place nor am I the individual to discuss this matter in detail. The National Tuberculosis Association will furnish specifications and cost of all types of sanatorium construction from the simplest to the most elaborate,

and will, on payment of travelling and hotel expenses send its own architect, who is an expert on such matters, to confer with the local committee, and give them the benefit of his knowledge and advice. It is however most important that the man at the head of the sanatorium be one of ability and of enthusiasm, able to stimulate the patients to do their part in winning their fight, and also able to keep the sanatorium in the public eye and to show the community that its investment has been sound and is bringing returns.

The charges for patients will of course have to be determined by local conditions, but should be nominal. There is an advantage in making some charge quite apart from the financial revenue to be derived. A fee for treatment militates against the pauperization of the inmates and preserves their self-respect. Let a man pay from $30.00 to $50.00 monthly and he feels that he is not a public charge. This helps him and also makes the poor of the community less opposed to entering the institution toward which, at least in the beginning, a certain amount of prejudice will always be encountered. If the institution is free, prospective patients will come to class it with the county home and all with a spark of pride will resist entering it. Naturally patients quite unable to pay will be admitted free.

Duration of stay must be limited of course but this limit must not be too arbitrarily adhered to. As a rule six months is the standard limit of stay in state and municipal sanatoria. When however in the opinion of the physician-in-chief two or three months more will bring about apparent arrest of the disease, a patient should be allowed to remain. I feel very strongly that all stages of tuberculosis should be admitted to the municipal or county sanatorium. It is established for the sick of the community and should serve them regardless of the extent of their disease. Brilliant statistics are to be derived from institutions admitting only first stage or incipient cases, but a large percentage of apparent arrests is not the prime object of the municipal or county sanatorium.

One very important factor remains to be discussed in connection with the tuberculous patient. This is the "follow-up" or "after care" upon discharge from the sanatorium. It is a fact that a relatively small number of patients will be classed as "apparently arrested" after six or eight months of sanatorium treatment. It is equally a fact that it is practically impossible to retain all patients in the sanatorium until they can be classed as "apparently arrested" or until they die. To attempt to do so would curtail the sphere of usefulness of the institution. It will however equally curtail its usefulness if patients are simply discharged and the matter ends there. The object of the county or municipal sanatorium is to return the tuberculous to the community in a condition to become again productive citizens, and also trained and educated in means of prevention against tuberculosis rather than to turn out statistical tables of so many patients admitted, so many died, so many recovered, etc. If the sanatorium does not prove a benefit to the community it must become an expensive and undesirable liability.

In the absence of after-care the patient, upon discharge, if left to his own devices, returns to his old job and mode of life and in many cases breaks down again, when it must all be gone through anew. We must always remember that in municipal sanatorium practice we are not dealing with the type of patient that has the means to go to a health resort. Supervision of the patient must not cease when he leaves the institution or much of its work will be undone. The difficulties of this after-care work are manifestly enormous. In many of our states a large proportion of the patient personnel is of foreign birth or parentage and of a relatively low mentality. After-care is almost impossible with them. "There still remains a large number of patients who will repay in terms of increased health and efficiency any efforts expended in their after-care."

Hawes sums up three plans according to which after-care may be carried on as follows: "First, usually the case in those communities in which there is only one sanatorium, which has been the leading feature in the anti-tuberculosis campaign, it is the sanatorium itself which carries on this task, usually unfortunately regarding it as a more or less minor detail. This is of course quite natural, as in any institution it is the patient within the walls and not the one who has left its doors who receives the most attention. According to the second method, all the sanatorium does is to notify local agencies that this or that patient is about to be or has been discharged. It then becomes the duty of the local board of health or the private physician to look up this patient and guide his way during this critical period after leaving the institution. The third method of carrying on after-care work, and undoubtedly the best, is one by which all agencies, the sanatorium, state and local boards of health, private physician, and state and local nurses cooperate to bring about proper supervision of the patient."

These are general principles, as Dr. Hawes is dealing with tuberculosis in its relationship to the state as well as to the community. In the more restricted precincts of the county or municipal institution the problem is somewhat simplified in that the anti-tuberculosis society through its social workers, aided by the local board of health and the tuberculosis dispensary can come in closer contact with the discharged patient.

The anti-tuberculosis society should have a social worker who spends a goodly portion of her time at the sanatorium. She should, it is needless to say, be a person of tact, sympathetic, practical and efficient. She should be personally acquainted with every patient in the institution and should know when each patient expects to be discharged. A short time prior to the discharge of any particular patient she should secure from the medical director of the sanatorium an opinion as to the working ability of the patient. She should be cognizant of the patient's home conditions and finances, should interview his employers as to the possibility or impossibility of his resuming his former position, as to the likelihood of his obtaining shorter hours or easier work, and should see that on discharge he is placed under the supervision of his family physician or reports to the tuberculosis dis-

pensary at stated times. If he is not in a condition to return to work, friends, church beneficent organizations, the municipal associated charities or the relief committee of the anti-tuberculosis society should be interviewed so that on discharge the patient will not find himself obliged to either work or starve. It is particularly in the after-care that the efforts of the community as a whole must be enlisted and that the town must feel that as a unit it is putting its shoulder to the wheel toward assuming the responsibility of wisely looking after its tuberculous inhabitants. As the work grows, more social workers and district nurses will be needed to carry it on efficiently. The community must not expect to see tuberculosis eradicated as a result of its efforts. It must not hitch its wagon to the unattainable star of "no tuberculosis" but rather to that star which is within the reach of any earnest municipality, "no uncared-for tuberculosis." It is the uncared-for case that is so dangerous to the next generation. Living in squalid and unhygienic dwellings, sick and ignorant with no helping or directing hand to instruct and to guide, it is no wonder that the children in the home of a tuberculous individual become infected and grow up weakened, substandard, and ready to develop actual tuberculous disease in the course of time.

Thus far we have dealt with the direct handling and treatment of those actually afflicted with tuberculosis. We have spoken at some length of the "pound of cure." Mention must now be made of the "ounce of prveention."

No community has fully discharged its responsibility toward tuberculosis unless it has sought in every way the prevention of this disease, any more than a board of health would be considered to have done its duty had its members treated all cases during a typhoid epidemic and neglected to purify a polluted water-supply. Tuberculosis is essentially a house disease. In 1915, Dr. A. Maxwell Williamson, Medical Officer of Health to the City of Edinborough, showed that in that city during the years 1910, '11, '12, while 1 per 1000 of the population were attacked by tuberculosis in flats of four and more rooms, 2.1 per 1000 was the rate in houses of three-room flats, 3.4 in houses of two-room flats, and 6.1 in houses of one-room flats. He also showed practically the same figures for Greenock and Glasgow. Dr. Williamson says: "The key to the situation lies unquestionably in the housing question. If statistics prove anything, they prove to the hilt that the disease originates and thrives in direct proportion to the unsatisfactory nature of the house and its surroundings; and they prove invariably that an improvement in these conditions is followed, as by the law of cause and effect, by an immediate fall in the tuberculosis death rate. Existing conditions especially must be actively dealt with. It seems largely to be beating the air if we continue to walk about town, planning schemes for the future, while our dense, crowded, unsanitary slums are found everywhere existing." We cannot discuss the housing question without citing the famous "lung block" of New York, a single block bounded by Cherry, Market,

Catherine, and Monroe Streets, in 1894 the most densely populated block in the world, housing 3688 persons and yielding 241 cases of tuberculosis!

In the cleaning up of this housing question all municipal groups must get together, anti-tuberculosis society, board of health, city commissioners or aldermen, and private citizens. It must be made an issue at elections and placed prominently in every movement for civic betterment. Opposition will be met, that of the politician and that of the profiteer, each with his nest to feather. No city can be at once rendered ideal but the goal of "no unsanitary slums" must never be lost sight of. Not only will the incidence and death rate of tuberculosis be lowered by better housing conditions, but the general health of the community will be raised. These ideas are not utopian. These aims are not unattainable. All that is needed is a public consciousness of their need, patience, perseverance, the realization that Rome was not built in a day and that it is only by climbing laboriously step by step we can reach the summit.

"The child of today is the adult of tomorrow." Our remarks on the housing question apply equally to children and adults. There are two factors in tuberculosis prevention and control as applied to the community which concern themselves essentially with the child. These are:

1. Medical examination of school children.
2. Open air schools.

Medical examination of school children is so generally in vogue now that but brief mention will be made of it. School physicians however should specifically know the children in whose families cases of tuberculosis are known to exist and these children should receive special attention. Furthermore, while it is of course impossible to compel parents to have the defects of their children treated, such as the removal of adenoids and diseased tonsils, the cleansing of a foul mouth or the giving of glasses in cases of errors of refraction, the district nurse and social worker can and should second and emphasize the physician's recommendations. Their plea will have far more effect than the printed slip mailed the parents with the terse information that the child needs a tonsillectomy or glasses. Again cooperation is the key to success.

Open-air schools are to be found in many communities and are of infinite value not alone for children in whose family there is tuberculosis, but also for all those who are anemic, undernourished, or in any way substandard. The open-air school can be either in a room with specially constructed windows or in a shack. In either case it must be stressed that the air must not be too cold. Free circulation of fresh cool air is what is wanted, not cold air as such. The temperature of the open-air school-room should never be below forty degrees, forty-five is better. The children who are to attend the open-air school should be selected by the school physician. If the city authorities cannot bear the entire expense of conducting the school, aid should be given by the anti-tuberculosis society. Warm clothing, klondyke bags, hot water bottles must be furnished the little tots, for they must be absolutely comfortable. A hot drink (milk or

cocoa) and some solid food such as crackers or sandwiches should be served in the middle of the morning, as with many of these children breakfast is a very slim meal. The effects of the open air school upon its pupils is surprising. Instead of the languid, drooping children there is a crowd of wide-awake bustling youngsters, color comes to pale cheeks, enthusiasm takes the place of apathy, eagerness that of indifference. The sub-standard child reaches par value and many a one that under ordinary conditions would have become ill and gradually faded away, is saved to a life of usefulness and happiness. There is no better prevention of tuberculosis among children than the open-air school.

I have tried in a half hour or so to touch the keynotes of the control of tuberculosis in a community. I have tried to show that the care of the tuberculous and the prevention of the development of tuberculosis is a civic duty and a municipal responsibility. I have been forced to do this sketchily and to place before you the main points, omitting details. As a matter of fact, the more one goes into detail in this question, the more must one individualize, and to individualize would be impertinent in one who is a stranger to your city and to your state. West Virginia, while not at the head, is by no means near the foot in the fight against tuberculosis. With a population of 1,333,000 she has 376 beds, a bed-to-population ratio of 1:3547. But the more I see of tuberculosis the more convinced I am that its control and mastery can only be brought about by the establishment of sanatoria, with their two corrolaries, dispensaries and after-care in the smaller units of the commonwealths of our nation, the county and the municipality. Just as there is no specialty in medicine which requires more general medical knowledge than the specialty of tuberculosis, so there is no field of public health which will result in greater benefit to the health of the community in every way than a successfully waged anti-tuberculosis campaign taking in as it does everything from housing and schools to sanatoria, after-care and public education along general health and hygienic lines. Furthermore there is no measure for the betterment of the municipality which requires more cooperation on the part of all than the fight against tuberculosis. Religious differences disappear, political enmities fade away, social distinctions become blotted out. The tubercle bacillus spares none, rich or poor, and to the highest and lowest comes the thought "Tomorrow it may be me or my wife or my child." Success depends upon concerted effort, upon sustained pressure and enthusiasm. The few must take the load but the many must follow. Each community that takes a forward step in shouldering the responsibility of caring for its tuberculous and preventing the development of new cases places itself in the limelight of conspicuous service to humanity and by contrast stimulates each delinquent community to a like effort. And so going onward step by step in the face of obstacles and oftimes of discouragements, we must have faith, a high faith that our cause is righteous and just, a cause of the welfare of humanity, for the cure of those afflicted, for the preservation from infection of those not yet

attacked, a cause to which we cannot be blind or deaf, to which we must give and for which we must work in order that in our day and in our own community we may be able to hold high our heads and proudly say: "We have no uncared-for tuberculosis."

16 Haywood St.

CASE REPORTS: TWO CASES OF SO-CALLED "MILK ANEMIA OF INFANCY"

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The object of this case report is to bring out the main points regarding a condition seen almost daily by the busy general practitioner, and yet which is as a rule lightly passed over, with the administration of a few drugs and some haphazard suggestions regarding correcting the diet.

Case No. 1

Male, 14 months. First seen June 10, 1922.

Consulted physician because baby was pale and had not gained for six months. Did not sleep well nights. Learned to walk at eleven months but had not walked past six weeks before consulting physician.

Typical yellowish, waxy, transparent skin. Spleen not palpable and there was no general glandular enlargement. Mucous membranes pale. Can just stand alone and muscular development is very poor. Fontanelle 3 cm by 2 cm. and depressed. Costo - chondral junctions suggest a slight rosary. No enlargements of radial epiphyses and legs are straight. Ten teeth.

Blood examination: R. B. C. 2,800,000 Hb. (Sahli) 32%; W. B. C., 11,000, color index .57. Stained film—showed signs of a severe secondary anemia with occasional nucleated red cells but no myelocytes or early myelocytic forms. Mononucleosis. No parasites. Platelets normal. Bleeding time normal.

X-ray: Long bones, shadows very light, no other changes.

Chest: No changes suggesting rickets, no over-riding.

Urine—O; stools, no signs of parasites.

The mother was advised of the condition and instructed to wean the baby and institute the proper diet. This she refused to do "because her mother nursed all her children through the second summer." (The maternal grandmother had reared two out of six children, the others dying of one thing and another before the third year.) The mother was willing to let the baby have cod-liver oil and oatmeal water, although refusing to permit the feeding of cereals until fall. As it was impossible to get the mother's cooperation it was decided to let the mother have her way and the case was watched for the purpose of studying the progress of such a condition. Every day the baby received 1 teaspoonful of pure cod liver oil and about 4 to 8 oz. of oatmeal water. Other nourishment was the breast solely every four hours.

The baby was carefully studied from all standpoints again the following September with the following results: Cod liver oil and cereal water had been given as directed, but no solid food. The baby now had 15 teeth, was not walking yet. He had never been very fretful.

Legs were slightly bowed outward and there had been an increase in the severity of the anemia and corresponding general weakness.

Blood examination Sept. 15, '22: R. B. C. 2,000,000 Hb (Sahli) 20%; W. B. C. 12,000, color index .50. Stained film, many nucleated red cells and early forms and some few irregular forms among red cells, Hb content of individual cells very low. No parasites.

X-ray: Long bones and skull with no signs of rickets but the shadows very thin.

Urine: Negative. Stools: No parasites.

The baby was then (September 15) started on a transition from breast milk to cow's milk and cereals. At first skimmed milk boiled for 5 minutes was given, not over 1½ pint daily and a little farina was given at 10 a. m. and 6 p. m. In three days whole milk was given and at the end of one week, oatmeal took the place of farina and cod liver oil was begun. In one month he was on a good general diet and orange juice was included.

By the middle of November his blood was greatly improved and the Hb had returned to 60% and the R. B. C. were 3,500,000. He had begun walking again, and the legs had begun to straighten. X-rays taken in November showed a marked contrast in the intensity of bone shadows, as compared with the ones taken previously, otherwise no changes.

This was a case of unusually rapid uncomplicated recovery. There has been to date no digestive disturbance. The mother watches the diet carefully. There has been no infection of any sort to date. He seems to be normal at 3 years.

Cast No. 2

Female, 16 months. First seen June 15, 1922.

Mother consulted physician because baby had been vomiting. Vomitus contained half macerated animal crackers and this had been the very first food of any sort other than breast milk, for the baby to receive. The mother had acted as a wet nurse to her sister's baby during the last three months preceding present observations. Seemed to have an abundance of milk. Had not menstruated since birth of patient and did not want to become pregnant again. It was very evident that she thought nursing the baby would prevent conception. Her excuse was that she would not wean the baby until the "full of the September moon." (Here we have a curious mixture of reasons for not weaning, ①did not want to become pregnant again; ②feared the second summer; ③had always heard that breast milk was the best food for her baby as long as she could nurse her.) As the case previously reported had come in just a few days before this one, it was decided to watch both cases develop throughout the summer and fall and report the findings at some subsequent time. It was felt that this would be at least interesting if not actually worth while, because there are so many babies seen in this region that have slight evidences of rickets, are usually breast fed, have a high grade of anemia and we are greatly surprised to find no evidences of rickets in the X-ray plates of the bones.

On examination in June 1922 the mother said there had been no infection previously except slight colds occasionally. There were 12

teeth (16 mos) and the skin was waxy, yellowish and transparent. Mucous membranes were colorless. Patient was so lifeless that it amounted almost to apathy. Could not walk. Barely sat up alone. Had walked at 10 months but stopped at 13 months. Had not gained since 1 year of age. At 16 months weighed 20 lbs.

Blood examination: R. B. C. 2,-500,000 Hb (Sahli) 25%; W. B. C. 12,000, color index .50. Stained film—very severe secondary anemia but no early forms. No parasites. Platelets and bleeding time normal.

Urine—No signs of urobilin, etc. Stools—no parasites.

X-ray—Long bones showed only very light calcareous deposits.

Chest—no signs of tuberculosis, lues or rickets.

The baby was then lost sight of and not seen until the following September (three months later and then 19 months of age). The mother had given meanwhile no cereals or solid foods and the baby had been fed solely on breast milk. Orange juice and cod liver oil had neither one been given and the mother still seemed to have a profuse milk supply. She was not yet pregnant nor had she yet menstruated. She quit nursing the sister's baby, however, after her visit in June. The baby had not been "sick" all summer but had fallen off to 19 pounds, a loss of 1 pound in three months.

When examined in September 1922 (at 19 months), the baby had changed in appearance very little except for increased pallor and weakness. She was fairly alert mentally and showed no signs of being a mental defective of the orthodox type.

Blood examination: R. B. C. 1,-800,000 Hg (Sahli) 18%; W. B. C. 16,000, color index .50. Stained film—irregularly shaped red cells, nucleated red cells and early forms of both red and myelocytic forms. This is evidently a reaction to a very severe secondary anemia.

Urine—negative. Stools—No evidences of intestinal parasites.

X-ray—No changes other than extremely light shadows and no evidences of scurvy or rickets is to be made out, in spite of the type of feeding and the severity of the anemia.

This baby was started then (September) on a slow transition to cow's milk and was not weaned abruptly. The breast was allowed twice daily for two weeks and in the meanwhile skimmed cow's milk (boiled) and farina were started. At the end of the second week she was put on formula and farina entirely and the breast discontinued. Meanwhile cod liver oil was begun in each feeding of milk. At the end of the first month (October 20, 1922), the baby was taking a diet suitable for a baby of 6 months but seemed to be gaining in strength and her hemoglobin had raised to 30% and R. B. C. to 2,700,000.

Things went along all right for a while, then the mother got impatient and decided to take things into her own hands and a severe attack of vomiting and diarrhoea followed her attempt to give toast, fruits and bacon. This was in December and the diarrhoea cleared up only after two weeks of Hoos Protein Milk and skimmed milk. Then we started all over again and since then the mother has been pa-

tient and faithful and now at 3½ years the patient is improving, steadily, but it has been quite slow the past 18 months. She has had poor resistance to most infections. She has not the strength and vitality she should have at 3½ years. She wets the bed every night, has quite a definite invalid complex, and shows other signs of being a very neurotic individual in the making. Her mind is keen and she tests ahead of her years in this respect.

Blood examination, Feb. 10, 1923 —R. B. C. 4,000,000 Hb. (Sahli) 80%; W. B. C. 8,000, color index, 1.0. Stained film, normal.

While perhaps not a perfectly normal blood for a child of her years, it is gradually approaching that condition. Her trouble now is the weakened digestive system and depleted nervous system secondary to the anemia and its accompanying disorders. It will be many years, if ever, before she makes up for the handicap acquired between the seventh and twentieth months of age. This has been an example of the severe refractory type seen at times.

Summary

Occurrence—In all types of family, particularly the half-enlightened.

Ages—Six months to three years, particularly ten to eighteen months.

History—Prolonged feeding on a diet consisting of milk (breast milk or cow's milk or proprietary feeding) with as a rule no other foods; particularly the exclusion of scraped meats, cereals and green vegetables. Usually gain all right until sixth to ninth month and from that time either gain very slowly, stand still or even begin to fall. Mothers are afraid to wean baby or begin solid food because of ①fear of second summer and teething; ②horrors of improperly fed bottle baby; ③lack of proper education regarding the proper time to start solid food, cow's milk, etc.

Physical examination — Usually quite weak muscularly and walk only poorly if at all. Skin is yellowish, pale, waxy. No color to mucous membrane. No general glandular enlargement. Spleen rarely palpable. At times bowing of legs, prominent costochondral junctions and square head suggesting rickets.

Laboratory findings—Blood: Red cells 1,800,000 to 3,000,000; white cells 5,000 to 15,000; Hb (Sahli) 18% to 50%; color index always less than one, usually .4 to .6; stained film—at first mild secondary anemia with all the signs of marrow stimulation (early blood cell forms) and finally in severe cases signs of marrow exhaustion (irregular sized and shaped red blood cells, degeneration forms, etc.); no parasites; platelets, bleeding and clotting time normal. Stools—negative. Urine —negative. Wasserman and tuberculin tests negative if uncomplicated. X-rays: Calcareous deposits of bones very light until the food deficiency is corrected. Important to rule out rickets, lues and tuberculosis.

Treatment is aimed at establishing a normal diet, which means weaning, if on the breast, or cutting milk to proper amount and quality if on a bottle. General dietetic treatment suitable for the child starting cautiously on a diet suitable for a five months old baby just commencing with cereals, etc., and

gradually strengthened (as tolerance increases) to the diet suitable for the normal child of the same age as the patient. The use of cod liver oil religiously, orange juice, green vegetables and cereals, especially oatmeal. Sunshine beneficial but not specific.

Prevention—Education of mothers to the fact that it is unwise to nurse babies longer than nine to twelve months and that even then cow's milk should be given daily from the third month and cereals from the fifth month. Our two mediums to educate the laity are ①the press and ②direct instruction of patient by physician.

RECIPROCITY BETWEEN THE HEALTH OFFICIALS AND THE MEDICAL PROFESSION

PRESIDENTIAL ADDRESS OF
E. C. LEVY., M. D.
Director of Public Welfare,
Richmond, Va.

Presented at the Fifty-second Annual Meeting of the American Public Health Association, Boston, October 8, 1923.

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Next to adequate training on the part of the health officer himself, success in public health administration probably depends, more than on any other factor, on the establishment and maintenance of proper relations with the medical profession. Indeed, the health officer most highly trained from a scientific standpoint may wreck his entire outfit by arousing the active antagonism of the local medical profession, while one far less well trained at the start may by diligent application gradually become a successful health administrator if always backed by a medical profession which his common sense and consideration has converted into an ally to be counted on both in emergencies and in the daily routine of his work.

Any one of you who will run over in his mind the accomplishments of the various health officers with whom, or with whose work, he is intimately acquainted will, I believe, reach the inevitable conclusion that, with perhaps an exception here and there, those who have made the greatest success of their work are those who, either naturally or with deliberate intent, have cultivated the friendship and support of the medical profession. Moreover, no matter how great the apparent success which has attended the work of a health officer, it may well be questioned whether he is really successful if the medical profession is antagonistic, or even if the local medical profession is not actively cooperative.

Any question of the propriety of bringing in a personal incident which I wish to recite may, I trust, be overlooked in view of the fact that it has as its central figure a public health worker whose field of action was for so many years in the community in which we are now meeting, who has for so many years been a leader in the American Public Health Association and who was its President just thirty years ago.

When, in 1906, I was about to enter on the duties of Chief Health Officer of the city of Richmond, I sought counsel of a number of outstanding men in the practical field of public health work, among them

Dr. Samuel H. Durgin, then Chairman of the Board of Health of Boston. His response to my question as to what would be the first things which he would do if starting in as health officer in a city in which but little public health work had been done, was given without an instant's hesitation. He advised that securing the friendship and cooperation of the medical profession was the first essential, and illustrated his point by citing instances in which his own work had been made possible by following this policy. He added that unless he could feel that he had the medical profession with him he would resign at once, as his position would be too difficult, too disagreeable, to think of.

No health officer at the start of his career could have had sounder advice than that given by Dr. Durgin. Proved by my own experience during the past seventeen years, I would, in turn, pass this advice on to the younger men of today who are entering the public health field.

Just how the good will and active aid of the medical profession in any community can best be secured must be worked out by each individual health officer in his own community. There are, however, certain broad principles which can be laid down. The details must be left to each health officer.

First of all, the health officer must in his own heart entertain for the medical profession the highest degree of respect. The health officer who outwardly cultivates the medical profession and who inwardly has contempt for their attainments in the public health field is sure to be found out. This does not mean that the health officer must or that he can regard the members of the medical profession as experts in public health. Distinctly they are not, but the fields of public health and medical practice have certain things in common, while, outside of this common ground, each profession covers much not included in the other. It should be the aim of every health officer to have very clear ideas concerning this common field, and in it to secure complete cooperation of the two professions.

At this point it may be well asked just what right has a health officer to feel that he is entitled at all times to the cordial support of the medical profession. This question has often been answered by stating that the medical profession differs from all other human callings in that its members are frankly devoted to the betterment of humanity and that, for this reason, they should always be willing not only to respond to all demands for charity work but should also regard it as their special privilege to give freely of their time in promoting the cause of public health.

While there may be much in this argument, it is safer to assume that doctors, first of all, are men constituted as are other men, having their own livelihood to consider and not receiving such special consideration from the general public as calls for their giving to the public more than do the members of other professions.

While by no means questioning the altriusm of the medical profession, by no means wishing in the slightest degree to detract from their record for unremunerated service to suffering humanity, we are, nevertheless, on far sounder ground if we can show that there

are advantages to be gained, by physician and health officer alike, through mutual understanding of the benefits which each profession can confer on the other. Unless we can make out a convincing case along these lines, it is to be feared that our position is fundamentally weak.

In considering, from a practical standpoint, cooperation between the medical profession and the constituted health authorities, we may, first, take up those things for which the health authorities are absolutely dependent upon the doctors. In this category come the reports which doctors are everywhere required to make, covering births, deaths and cases of contagious disease occurring in the course of their practice.

In their attitude toward the enforcement of this very fundamental requirement, we find health officers sharply divided. Some, finding that they have at their command both state statutes and city ordinances requiring these reports and imposing severe penalties for failure to supply them, feel that they will get full and satisfactory returns by uniformly reporting to court every delinquent; for they hold that not only will the men who have themselves been fined see to it that they thereafter comply with the law, but that other members of the profession will also do so, lest they, too, be made to suffer the consequences.

Other health officers regard these laws only as a last resort, to be invoked only where other means have failed. This latter group questions whether, even in the completeness of returns, as good results can be secured by force as through less drastic measures, for, while of course through rigid enforcement of the law a certificate for each birth and each death can be obtained, still the physicians are not likely to take as much trouble to give accurate and full information under compulsion as under cooperative endeavor. The more carefully these certificates are made out, the more reliable will be the statistics based on them. In certain other classes of reports, particularly reports of contagious diseases, the case is not so simple. No law can force a doctor to make an early diagnosis, and so reports submitted willingly are far more likely to be made promptly, and, also, more reports will be made of suspicious cases than where sole reliance is placed on the strong arm of the law.

Sound argument can thus be made as to whether, even in the promptness and completeness of those returns required by law, the health officer will get as good results by force as by willing compliance, but, assuming even that the reports themselves are as complete, or even more complete, the health officer may well consider whether in securing this one result he is not doing so at too great a cost. The physician who has once been haled into police court and fined is not going thereafter to have friendly feeling towards the health officer through whose act he was publicly held up as a law violator, and where many physicians in a community have been thus dealt with, the health officer has made just that many enemies, or at least failed to make just that many friends among a group where friendship means so much, for in addition to the furnish-

ing of such reports as are required of them by law, there are many most important ways, not covered or coverable by law, in which the physicians of a community can be of inestimable help to the health authorities. Only a few of these will be mentioned.

Most important of all is the influence which the physicians of a community can exert in bringing the general public to an appreciation of the work which the health authorities are doing. We well know that no health measures can be for long successfully enforced unless the people so desire. Health departments have many duties in the exercise of which individuals are temporarily inconvenienced and many others which for their success depend on active cooperation on the part of the people. To have the doctors of a community in their daily rounds upholding and commending the work of the health department has value greater than can well be expressed.

In the next place, every health department recognizes its own weakness in securing cooperation of the people in general measures of personal hygiene. Yet the carrying out of these measures is, in its collective results, of equal importance with those measures of general sanitation which the health department itself can directly enforce. No single agency, unless it be the schools, can accomplish as much in instructing the people in measures of personal hygiene and in actually inculcating health habits among the people as can the doctors.

In the two ways just mentioned, the cooperation of the medical profession is invaluable because, next to the health authorities themselves, the doctors are best versed in matters of sanitation and personal hygiene, and also because in many instances the word of their own doctor is accepted by the people in preference to that of the health authorities.

There is a third way in which the individual physician can be of great aid to the health officer, namely, by assisting in the securing of health legislation and appropriations for health work. There are times when a word from the family physician to his councilmanic patient will have greater influence than the arguments of the health officer in securing necessary votes for the above purposes.

In addition to individual effort, there are important ways in which the medical profession, collectively, can serve the cause of public health in a community. From time to time every health officer has to meet acute situations in which public sentiment needs to be strongly and quickly aroused. Here no outside help is comparable with that which can be had through action by the local medical society. This help may be in the shape of formal resolutions, or, even more effective, special committees may be appointed to cooperate with the health officer in such ways as he may suggest.

Finally, as one of the ways in which the medical profession can aid the health officer, I may mention the appointment of committees for the study and handling of special problems, particularly in connection with diseases the epidemiology of which is not understood.

As stated above, we have the strongest possible case for cooperation if we are able to show that the

medical profession derives from such cooperation benefits equal to those which it bestows. I believe that this can readily be shown.

The ways in which the health authorities can serve the medical profession in any community may be divided into two classes; first, those things which, done by all efficient health departments in the regular routine of work, are, in one way or another, of service to the doctor, and, second, those things which are not so generally recognized as important but which are regarded as distinct adjuncts by the thoughtful health officer, and which bring most decided benefits to the physicians of the community.

Every health department, in its regular course of routine work, makes available for the physicians a laboratory where specimens of many kinds submitted by the physician himself are examined for the purpose of assisting in arriving at a diagnosis. In most health departments today there is also furnished a consulting service for acute contagious diseases, for tuberculosis and for venereal diseases, on which the doctor may call and secure the aid of men expert in these particular lines.

Next may be mentioned the furnishing of free antitoxins, vaccines and other biological products, thus enabling the physician, without cost to the family, to give the most accepted form of treatment.

Much of the advice which every health department gives the people for their own benefit must, if followed, incidentally bring in an immense amount of practice to the doctors of the community. All health authorities advise the people to have routnie physical examination and to call in a physician for slight ailments rather than wait until a serious, or perhaps an incurable condition has been brought about. We strongly urge mothers to have their babies under regular supervision by the doctor during their first year, without waiting for symptoms of illness.

We advise the people to consult their doctor for those conditions which are known frequently to develop into cancer. We advise the pregnant woman to employ a physician as soon as her condition is known to herself and to visit him at least once a month up to the time of delivery and at least once several weeks after delivery, so that any damage which may have been done can receive attention.

The child, after its first year and up to the time of entering school, should be regularly seen by the family physician. We should teach parents that the welfare of their children is primarily their own responsibility, and that the public authorities come in only where this responsibility has been neglected.

The present absurd state of affairs cannot be allowed to continue, of waiting until a child enters school to find defects which should have been recognized and corrected years before. We therefore, as health officers, stand solidly back of any movement which will make it accepted practice to have the family physician not give up his responsibility when the baby is one year old but have him continue his visits, at least once a year thereafter, for the recognition and correction of defects and for general advice concerning the child's welfare. If this is done, most children will enter school well nourished and without

defects which handicap them in their progress and which, if corrected during the school session, involve weeks of inefficiency until there has been recovery from the operation itself and time for the benefits to develop.

We advise that, during this preschool period, the family doctor should attend to vaccination, to the administration of the Schick test, followed by toxin-antitoxin if indicated, and, if thought desirable, to the giving of the typhoid prophylactic.

As a matter of interest, I asked the Health Officer of the city of Richmond to give me, in the briefest possible form, memoranda of the various ways in which the Richmond Health Bureau advises parents, or others, to call in their family physician, or other medical assistance. I did so expecting to incorporate this in the present paper, but when handed me, in brief memorandum form, this advice covered four typewritten pages. In other words, the Richmond Health Bureau—and I presume the same can be said of municipal bureaus or departments elsewhere—in what it conceives to be its duty to the public conscientiously advises the people to call on the doctors of the community to an extent which, beyond question, would give them an amount of practice far exceeding that which they have admittedly lost through the lessened prevalence of contagious diseases.

All the matters above just mentioned are measures adopted in the course of the health department's routine work and in the discharge of its duty to the public. The benefit to the physicians of the community, though great, is incidental. The conscientious health officer can and will, however, do many other things which will be of great benefit to the medical profession of his community. In the daily rounds of himself and his subordinates, many homes will be visited in which they hear expressions of dissatisfaction with their own doctor or criticism of the medical profession in general. In such cases the health officer and his assistants can do much to uphold the physician and to correct false ideas concerning medical practice as a whole.

Outside the ranks of the medical profession itself no one so well knows as does the health officer the danger of the many irregular forms of practice now offered the public. Unfortunately, not even the more intelligent classes seem to realize the very simple fact that the regular practitioner of medicine avails himself of all measures which have been proved to be of benefit in the handling of disease, nor do they realize that by no possibility can anyone be held competent to deal with the sick unless he has had years of training in certain indispensable fundamentals. Not only does the health officer realize these facts, which it seems impossible for the public as a whole to learn, but, overlooking nothing which may promote the physical well-being of the people, it is his distinct duty to warn them against the inadequacy and the positive dangers of the many forms of irregular practice with which this country is today afflicted.

In the Literary Digest for September 22, under the title, "What People Think of the Doctors," there was given a very full abstract of an article which appeared recently in the Illinois Medical Journal. 1

have not been able as yet to secure a copy of the original article. In the abstract given it is shown that out of 6772 persons of all classes interviewed—5719 in Chicago and 1053 outside of that city — "only 931, or 13 5/16 per cent, had never dabbled in any cult or pseudo-science. Of the 931 with a perfect record, only 384, or 5 11/17 per cent (of all), had no curiosity about any of said cults or quackery and no intention of experimenting just a bit with them."

In explanation of why these quacks and cults were consulted, twenty-two groups of answers were given. A few of these answers indicate clearly the need of corrective action on the part of the medical profession itself, but nearly all of them show profound ignorance of just what constitutes the difference between the regular practitioner of medicine and the quack.

Such a study as this is of the greatest interest and value, but it merely confirms what everyone already knew; namely, that, in spite of the fact that regular medical practice today is incomparably superior to what it has ever been, nevertheless there has never been a time when the people had less confidence in it.

It is as much the duty of the health officer as it is to the interest of the doctors to combat this tendency on the part of the people to seek the aid of practitioners of all manner of "pathies" and "isms." If anyone is disposed to question this statement, let him picture the public health situation in a community in which everyone was a disciple of some irregular cult! The health officer can preach the inadequacy and the danger of these cults and not have selfish interest charged against him.

We have here a splendid illustration of the interdependence between the medical profession and health authorities. If the word of the health officer is to be accepted by the public he must himself have their confidence, and no agency can so build up confidence in the health officer as can the medical profession. Therefore, in helping to increase confidence in the health authorities, the doctor is increasing the weight of such advice as the health officer gives the people in matters such as that under discussion.

On the other hand, when the health officer upholds the doctor, he, in turn, is giving additional weight to what the doctor may say concerning the health department. In many of the matters above mentioned this interaction is present, but it is here exemplified in the highest degree.

I trust that in what has been said I have been able to show how greatly it is to the interest of the medical profession and the health authorities to uphold each other's work. The large part played by each in the other's success should assure mutual consideration and helpfulness on the part of the health officer and the medical profession, both collectively and individually.

Having shown that the two professions should cooperate because it is distinctly to the advantage of each to do so, I would, in closing, plead for that much fuller and more satisfactory cooperation which must arise from true underlying esteem, each for the other, from sincere admiration on each side for the work which the other profession is doing

and for the part played by individual members of both professions in the big affairs of the world.

Cold recognition of the facts above considered and of others which limitations of time and space make it impossible to include can hardly fail to show health officers and doctors alike how greatly the full success of each is dependent on the other, but if, instead of such calculating of advantages to be gained, we can all learn truly to respect and admire the work of the other and to extend to each worker the hand of good fellowship, as to a brother, then I am sure even closer cooperation, even more brilliant results, will follow, to the everlasting credit of each and to the benefit of a world which now, more than ever, needs the best that each of us can give.

ACUTE INTESTINAL OBSTRUCTION IN INFANTS

By DR. ALBERT G. RUTHERFORD
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In the past month we have admitted and operated on two unique cases of acute obstruction in infants. The rarity of the condition, and the good results warrant reporting the cases.

The first was a Complete Indirect Inguinal Hernia, right side, with strangulation of the intestines. This child was one year old, colored, and was sent to the hospital seventy-two hours after onset of definite symptoms of obstruction, viz: intermitting pain, vomiting and absence of bowel movement. This child was very toxic and shocked when brought to hospital, and an immediate operation was performed. The constricting band was released. The intestines were of such a character they did not require a resection, although they were near the point of gangrene. A radical cure Herniotomy was completed; the child's convalescence was uneventful and it was discharged from the hospital on the fourteenth day after admission. Condition of child at discharge was good.

The other case was that of a child, female, age four, who was sent to the hospital without a diagnosis, seventy-two hours after it was taken sick.

History obtained showed that the child had the cardinal symptoms of obstruction. Physical examination revealed a markedly prostrated child, extremely rapid pulse (160). Positive findings were blood and mucous in the rectum, and a definite palpable tumor in the right quadrant of abdomen. A pre-operative diagnosis of Intussusception was made and the child was taken to the operating room at once.

A right rectus exploratory incision was made. The palpable tumor was found to be an intussusception of the ilium, and after releasing the intussusception, with some difficulty, a finger-like projection was found springing from the anti-mesenteric border of the ilium about 2½ feet from the ileo-ceacal valve. The portion of the ilium from which this finger-like projection, or Meckel's Diverticulum, was found was the portion of the ilium incorporated in the Intussusception, and in all probability the primary cause of the Intussusception was the Meckel's Diverticulum.

Due to the marked prostration and grave condition of the child, the Diverticulum was not amputated. We felt that releasing of the obstruction was the operation at that time.

The child's bowels moved a few hours after operation. She was given oil twelve hours later, followed with an enema with very good results.

The child's general condition quickly improved and she went on to recovery uneventfully. She was discharged from the hospital cured on the fourteenth day.

CANCER OF THE MOUTH AND LARYNX

DR. H. E. OESTERLING
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Wheeling, W. Va.

Cancer of the mouth occurs more frequently in men than in women. The great majority of persons suffering from malignant lesions within the mouth have all their lives been unsanitary or careless in the care of their mouth and teeth. Indifferent dental work or rough teeth causing continued irritation has been found to be a predisposing cause in many cases of mouth cancer, for the disease begins exactly at the site of the area which has been subject to a continued irritation.

Permanent bridge work and poorly fitting plates, permitting the retention of food and irritation of the gums, are also factors in the development of malignant disease of the mouth.

The continuous and prolonged irritation from tobacco in some form is an important factor in producing a whitish patch within the mouth which may develop later into cancer. Bloodgood calls attention to 160 cases of cancer of the tongue, only two of which did not use tobacco in any form. The striking feature was the excess of tobacco and not the form; the constant presence of tobacco juice in the mouth and careless smoking, so that repeated burning of some area, producing either an area of irritation, or a definite burn, white patch—or Leukoplakia.

Cancer sometimes occurs on the lower lips in middle aged and old men, due to habitual pipe smoking, where the pipe is daily held against the lip in some favorable position. Cancer of the lower lip almost always begins as a small painless surface sore, and causes no discomfort. A narrow crack or a patch on the lip soon covers itself with a thin crust, which in a few days falls off, but in the case of cancer, the crack still remains. It does not discharge or bleed, and another crust forms, which later separates, still leaving a raw, unhealed surface. This raw spot becomes larger, the edges a little thicker, and if allowed to continue untreated the ulcer becomes large, may extend beyond the lip margin, and may start a secondary growth as shown by kernels under the chin.

All sores, cracks, lacerations, lumps and ulcers which do not heal, as well as warts and moles which change in size, color, or appearance may turn into cancer unless skillfully treated. Leukoplakia, Papillomas, Angiomas, chronic stomatitis, root abscesses, and fistulas should be appropriately treat-

ed as a prophylactic measure against the development of malignant disease. A striking number of mouth cancer patients are also Syphilitic, and a combined tertiary lesion and cancer is not uncommon. All Papillomas or ulcers of the mouth showing a tendency to progress, unless the lesion is positively and purely Syphilitic, should be treated just as though they were cancer, as all Papillomas are potentially malignant.

In spite of the fact that cancer of the tongue, because of its location, is detected in the early stages, the results of treatment have not been entirely satisfactory, chiefly because physicians and dentists have not appreciated the importance of the treatment of precancerous conditions and of diagnosing and treating early malignancy.

The simplest manifestation of Laryngeal cancer is hoarseness or change in the quality and character of the voice in the middle years of life. If this one simple manifestation could be branded in the consciousness of the practitioner and of the public alike, thousands of cancer victims would be saved yearly. Fortunately cancer of the larynx is not frequent; over 80% of the cases occur in men between 40 and 70.

We are beginning to derive benefit from Bloodgood's propaganda of directing the attention of the members of the medical and dental professions, and the laity to this important subject.

Such campaigns will probably do more than improved technique, or the employment of newer agents for the treatment of cancer.

GAS BACILLUS INFECTION OF LEG TREATED WITHOUT AMPUTATION

By E. BENNETTE HENSON, M. D.
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H. W., age 52, lumberman, was admitted to the Charleston General Hospital December 23, 1923, with history of being struck over back, pelvis, and left leg by piece of timber. Examination showed the following injuries:

Compound fracture of right tibia and fibula lower third with history of ends of bones projected through clothing into dirt. Double fracture of both ischii, and rupture of prostatic urethra. Patient in considerable shock at time of admission.

Under Ethylene anaesthesia a thorough debridement of wound of leg with removal of ends of bones which had been contaminated, partial closure of wound. Insertion of Dakin tubes for Dakinization of wound hourly.

Perineal drainage of bladder, catheter carried through anterior urethra into bladder, secured in place by catgut suture in perineum. Patient returned to bed to be treated for shock.

The following day he was much improved and the outlook was fairly bright until the fifteenth day when the nurse while dressing the woung of leg noticed a crackling sensation around the wound and extending up the outer surface of leg for several inches. An X-Ray picture was immediately taken by a portable X-Ray machine. The X-Ray showed air spaces beneath the skin on the outer aspect of leg from site fracture to above the knee.

The muscles were not involved. A diagnosis of gas bacillus infection was made and immediate operation was decided upon. The patient's room was converted into an operating room and under Ethylene anaesthesia an incision was made on outer surface of leg extending from site of fracture up to about eight inches beyond the knee (an incision of about 24 inches in length). The incision was carried down to the fascia. All the subcutaneous tissue was necrotic, and oedematous for an area three to six inches in width. The necrotic tissue was excised; the fascia was not involved. At one place the fascia was cut accidentally and immediately sutured. All the necrotic tissue that could be found was cut away. Gauze saturated with potassium permanganate solution was placed in the wound, the skin allowed to fall on top of the gauze. There was practically no bleeding from the incision at any point. No sutures were taken.

The dressings were not changed for twenty-four hours. There was no extension of the infection. The X-Ray findings were negative the next day. The patient's condition was much improved. Numerous Dakins tubes were placed in the wound and Dakins solution placed in them every hour for twenty-four hours. There was no further extension of the infection and the wound surface began to take on the appearance of healthy granulation. There was continued improvement of the wound for the next few days, but on the sixth day the patient's condition changed suddenly for the worse. The urine became very offensive and was full of blood. The pulse became very rapid and weak and death came on the seventh day after the first signs of gas bacillus infection.

The immediate cause of death was infection of the urinary bladder due to trauma. The urine was never free of blood or pus and the cystitis could not be controlled and death was naturally to be expected in this case.

The extensive wound was healing nicely and was free from pain. Bacteria count was not made and I regret that the particular type of organism was not isolated at the time of operation.

The treatment of gas bacillus infection has undergone radical changes in recent years. Formerly it was customary to promptly amputate the limb above the infected area. Nothing short of amputation was advised and the amputation was quite a distance from the infection.

No doubt hundreds of lives have been saved and equally as many limbs needlessly sacrificed as a result of this teaching.

Surgeons who have had a large number of these cases no longer resort to amputation. Experience has shown that early and thorough excision of all traumatized and infected tissue will usually prevent the spread of the infection. Whole groups of muscles may have to be sacrificed in doing the excision. But it is better to sacrifice groups of muscles than a limb.

In the case here reported the infection did not involve the muscle but followed outside of the muscle sheath and for that reason no muscle tissue was excised.

Dakins Solution properly used is as good if not superior to the alka-

line or the many solutions advocated, in the after treatment of these wounds.

INFANTILE ECZEMA AND ITS TREATMENT BY THE USE OF COAL TAR OINTMENT

By HOWARD T. PHILLIPS, M. D.
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It is the purpose of this paper to deal only with infantile eczema and its treatment by the application of coal tar as brought out by Dr. C. J. White of Boston.

Infantile eczema commonly appears a few days or a few weeks after birth and may continue up to the age of 4 or 5 years and in a few cases indefinitely. It may be present in summer but is as a rule much more active in winter. Indeed in many cases it spontaneously disappears in summer only to recur with the coming of cold weather.

It appears most frequently on the scalp and face but in many cases spreads to the arms, legs and trunk—especially the flexor surfaces of the elbows and knees. Any portion of the cutaneous surface may present patches of varying sizes and degree but in more than 90% of cases the scalp and face are the points of origin. It may present only redness, or redness together with slight infiltration and excoriation but in most cases crusting is a prominent symptom and very often it is of the yellowish type of crust which causes it to be called "impetiginous eczema," the "impetiginous" part being due to secondary infection from scratching. In the scalp there is often a foul odor from these crusts due to the matting of the hair and the consequent retention of the discharges.

As to the cause of infantile eczema we may say that it is as yet unsettled. Many theories have been advanced but to date none accepted as definite or final. It is entirely likely that it is due to a number and not confined to any one specific causative agent. The most commonly spoken of theories are the ones which try to prove a disturbance in the metabolism of protein, fat, starches, sugar, etc. Other observers claim that the endocrines are at fault—a hypo or hyper activity of the thyroid, thymus, pituitary, etc. Another class of observers believe that external irritants to which the skin is exposed plays the major role in its etiology, however that may be, and until the cause is definitely established we must continue to apply those remedies which afford the greatest relief to the patient and give the physician credit for some measure of success in the treatment of these cases, even though the methods employed are largely empirical and in the treatment of infantile eczema the greatest single therapeutic agent by far, is to be found in the application of coal tar.

That there is a relationship between diet and eczema there is no doubt, although we are often surprised at the splendid physical condition of these patients, aside from their eczema, making us believe that the derangement of metabolism, whatever it is, must be of fairly slight degree.

A careful stool examination should be made looking for especially excessive fat, sugar, starch and protein and then a rectification

of the diet based upon the stool findings.

I believe that breast milk is the cause of infantile eczema in but very few, if any, cases, and I feel that it is absolutely wrong to indict so generally as is done, a diet which is as nearly perfect as mother's milk undoubtedly is. The dangers attendant upon a bottle fed baby as compared with a breast fed one, compel us to emphatically say, "DO NOT CHANGE FROM BREAST MILK TO FORMULA FEEDING UNLESS THERE IS SOME MORE DEFINITE REASON FOR DOING SO THAN AN ATTEMPT AT CLEARING UP THE INFANT'S SKIN CONDITION." The cases which do clear up at the time the child is weaned, say at from 9 to 12 months, do not in any way incriminate breast milk, the improvement noted at this time probably being due to a change from a restricted diet to a more generous one together with the tendency of these cases to clear up spontaneously as the child grows older.

Now as to the formula and method of application of coal tar ointment: Rx Crude tar and zinc oxide of each 2 parts (must be chemically pure products), mix thoroughly these two ingredients and add corn starch powder and petrolatum of each 16 parts.

The finished product should be black (not olive green) and should smell of coal tar and gas. If it is properly made it can be applied without any hesitancy to the tenderest or most acutely inflamed eczematous surface without causing any irritation but if it is an olive green then chemical changes have taken place which renders it irritating and less efficient.

This paste should be applied to the diseased skin night and morning—buttered on with a wooden tongue depressor and should not be bandaged. After the paste is applied it may be dusted over thoroughly with talcum powder which does not lessen its efficiency in the least, and does help in a great measure to do away with its black, tarry stickiness.

Before another application is made all of the previous inunction must be removed with gauze wet with olive oil.

Soap and water acts as an irritant and should not come in contact with eczematous areas. Portions of the body not affected should be bathed daily with castile soap and water. After the bath it is well to apply a coat of olive oil to the skin —especially if there is any tendency to dryness or roughness.

The stains on clothing or linen resulting from the use of this black paste can be removed by first impregnating the cloth with lard and then applying soap and hot water.

MEDICAL IDEALS TO BE ATTAINED

Abstract from New York State Journal of Medicine for February 15, 1924

By OSCAR B. BIERN, M. D.
Huntington, W. Va.

Without ideals, we accomplish nothing. Idealism is implied in Osler's definition of medicine, and it is the propelling force which carries many physicians through their practice, consciously or otherwise. The physician's native instinct of service makes him too often blind to the fact that materialism festers all

about him, and he leads a life which someone has described in these words: "The world does not owe me a living; I owe the world a life."

At the risk of repetition it might be well briefly to point out some of the ideals which must be constantly sought after since they insure future advance.

(1) The ideal of keeping alive the scientific inquiry spirit in everyone. The business of scientific medicine is nothing more than the making of medical observations, classifying them according to resemblance in succession and summarizing them in their relation to the abnormal phenomena of disease. Vast opportunities therefore confront the general practitioner as well as the scientist to share in medical achievement and though all cannot be a Sir James McKenzie, everyone can at least try to emulate his example. More and more must it be recognized that the ideas which stimulate research work come in large part at least from sick people themselves.

(2) The maintenance of an altruistic, optimistic, broadminded outlook on life is a prerequisite to professional progress. One of the greatest glories of our profession has been its deep interest in the physical betterment not merely of mankind, but of man. The older philosophers of the Greeks submerged man to the interests of the state. The priest too often places the welfare of the church above that of the communicant. Physicians minister not only to humans at large, but to man himself. The moment medicine becomes egocentric, or the scientific spirit ignores the humanities, disaster is inevitable.

(3) The ideal of eradicating all form of the irregular practice of medicine is imperative. Irregular practice is by no means confined to the ever-growing horde of charlatans, quacks and healing cults. Physicians fight none too well that vicious form of things which Robinson terms "rationalizing," that is, finding arguments for going on believing as we already do. An insatiable credulity abets the crime. The physician, although often forced to act without full knowledge, should never draw the cloak over his own ignorance. Any symptom of progress is a peg on which to hang the swindle. The use of some new chemical substance simply because it is vaunted by a crafty advertising manufacturer, the indiscriminate resort to a thousand and one varieties of vaccines, the excesses of contemporaneous devotees to grandular therapy, the orgiastic intemperance of some psychotherapeutic fanatics, the pushing of specialization beyond its reasonable bounds, the organization of pretentious diagnostic groups which are incapable of performing the functions they promise—all these are a few examples of irregular practice within our ranks. It is very easy to prefer the evasive way of deduction from a priori proposition, and hard to pursue the stony path of inductive science irrespective of where it leads.

(4) The ideal of fraternalism must be kept alive. Jealousy, criticism and intolerance lamentably weaken medical influence. Much can be done to perpetuate the tradition of a brotherhood by earnest attempts to create a scientific unity. The gospel must be preached especially to those backward members

of the profession who rarely attend county, city, state or national medical meetings. Fraternalism with workers whose daily life is occupied not with the care of the sick, but with the scientific study of conditions underlying such care, is quite as important. The benefits to be derived are equally reciprocal.

(5) The ideal of public service cannot be shunned. By oath, physicians have pledged their support to the enforcing of laws and the sustaining of institutions dedicated to the service of humanity. It is their moral duty to give advice and to sit in council with others whose work concerns the betterment of community hygiene. Upon all questions of local public health their opinion should be openly and frankly expressed. It must not be forgotten that we are in a period of legislative morality and that the field of medicine has been a fertile one for the reformer, agitator and propagandist. The physician faces a serious menace in the spread of the idea that medical socialization will bring higher standards of health. Both political doctors and medical politicians are foisting subtle arguments and insidious pleas to secure public patronage. We pay a tax for the privilege of giving morphine to a patient in agony, but there is no evidence of the utilization of the money thus derived for medical uplift or the reclamation of unfortunate narcotic delelicts. It is no time to be complacent. The physician has nothing to fear in backing preventive medicine to the utmost.

(6) There must be no let down in ideals which govern our ethical standards of conduct.

(7) Finally just a word about their personality ideal. We are, fortunately, beginning to realize that what we think of a mind is so intimately associated with what we call body, that one cannot be understood apart from the other. Bodily reaction to emotional states are well recognized and the "unconscious" is probably but the domain, as yet poorly explored, of physiological changes which have escaped our notice. Hidden impulses, repressed desires, not always improper ones either, conflict with inherent instincts, influences conscious thought and physical fitness tremendously. We are apparently unaware of a great part of what we perceive, remember, will or infer. "The brain is the organ of forgetfulness as well as of memory," and the forgotten, or the habitual, constitute a great part of the so-called "unconscious," a psychic state, which far outruns in activity our conscious being. It cannot be denied that physicians, scientifically trained in the investigation of special organs or functions, take too little note of the emotional and mental reactions marking the actions of the human body as a unit. Until the study of human behavior and the personality factor becomes more animated and consistent a lack of logical motive in the work of many physicians is likely to continue.

ANNOUNCEMENTS AND COMMUNICATIONS

Feb. 12, 1924.

Dear Doctor Bloss:

In reply to your letter asking for my views on the employment of a permanent secretary for our asso-

ciation, will say they have not changed in the least since I expressed them at Wheeling in my presidential address, published in the Journal in June of 1916.

At that time I asked if it would be feasible to have some one give half time if we were not able to employ a full time man. I said in part: "We need an active head to our business, an officer who will be on the ground all the time, one who, after some years of service, will be on the inside, who will know the public men of all parties, who will know the powers that be, and who will know how to obtain needed legislation and defeat hurtful legislation. So far as I am able to observe all successful organizations today have such a man."

I concluded by expressing the desire and belief that "some day over the portals of some building will be read the words, West Virginia Medical Association, and within the building will be one of our number —on the job all the time."

I think the desirability of this step cannot be questioned; its feasibility, practicability is another question.

Dr. West, our A. M. A. secretary, writes me that he doubts if a state having less than 3000 members with an assessment of some seven or eight dollars can finance such a step.

He reminds us that not only will there have to be additional money raised to pay his salary but also for the increased activities his work should bring about.

My idea was to combine the offices of secretary and editor. Some of our states do this, some do not.

Ohio, Virginia, California, Texas and Wisconsin have full time secretaries. In only Texas and California is the secretary a physician.

Dues vary from $2.00 to $20.00. Wisconsin, the last one to install a full time man, has dues of $9.00.

We want this plan, we need it. Can we make it go with our present number?

A. P. BUTT.

—

March 14, 1924.

Dr. Jas. R. Bloss, Editor,
W. Va. State Medical Journal,
Huntington, W. Va.

Dear Dr. Bloss:

I have received several letters from physicians in different parts of the State asking me to send you a communication in regard to the employment of a full time secretary by the West Virginia State Medical Association.

Our Society has developed to the point where it is not only advisable but necessary to secure the services of a secretary who can devote his entire time to the work of extension, organization and business management.

The routine duties of the office as it is conducted at the present time impose too great a burden upon a physician with a moderately active practice. He finds himself extremely busy answering necessary correspondence, crediting membership dues, issuing certificates and handling the many details in connection with the annual convention. He has no time to devote to:

1. Organization of new member societies;

2. Reviving of enthusiasm in old societies that are languishing;

3. Campaigning for new members;

4. Investigating and prosecuting imposters and charaltans;

5. Looking after the medical profession as it may be affected by legislative action; or

6. Building a stronger, more efficient medical organization in the state.

As suggested in the enclosed letter which Dr. C. A. Ray has prepared for distribution to our component societies, a full time secretary would be expected to be responsible for the business management of the State Medical Journal. I have no doubt that his services would be highly appreciated by our very able editor. Furthermore the records of our society and the files of the editor of the Journal should be kept together in a permanent office, because they are valuable from both a scientific and an historical standpoint.

In order to employ a full time secretary it will be necessary to increase the membership dues. I believe that an increase of not more than $5.00 per annum per member will be sufficient for the purpose. This question should be discussed by every one of our component societies, and the delegates should be prepared to voice the sentiments of their respective societies when we convene in Wheeling, May 13, 14, 15.

We are planning for an exceptionally interesting and entertaining program for this next annual convention. Practically a full list of speakers has been prepared, and the committees on social entertainment are working hard and acting mysteriously. Any West Virginia doctor who misses the Wheeling meeting will always regret it.

Sincerely yours,
D. A. MacGREGOR, Secretary,
W. Va. State Medical Assn.

—

March 1, 1924.

Dr. Jas. R. Bloss,
Huntington, W. Va.

Dear Doctor:

The time has come in the history of the West Virginia State Medical Association when we must either retrogress or enact some constructive legislation. There are a number of matters to come before the next house of delegates at Wheeling and it is important that you discuss some of these subjects with your county society and instruct your delegates to advocate and vote the sentiments of your whole society.

We should, by all means, have a state executive officer whose duties it will be to look after the business of the state association on a full time salary basis. He would be business manager of the Journal, head of all legislative matters, law suits against physicians for supposed malpractice, prosecute violators of the medical laws by charlatans and quacks and be on the lookout for all matters which may affect our profession. This will of course necessitate an increase in our annual dues, but will be a small item in comparison with the benefits to be derived therefrom. The profession of West Virginia cannot afford to be out of date in business affairs when our scientific attainments are equal to if not greater than that of some of our neighboring states.

Let us seek to determine who among candidates for the legisla-

ture will be friendly toward enactment of public health laws and will be broad-minded enough to see the unselfish spirit of doctors who are trying to protect the public from quacks, etc.

If the United States Congress can pass laws to prevent advertisement of patent medicines, sure cures, etc., why shouldn't West Virginia enact laws prohibiting the advertising of chiropractors, whose methods are far worse than patent medicines and sure cures?

The Compensation laws should be amended so that surgeon and hospital would be amply paid for their services. Prescribing druggists, laboratory technician and quarantine laws should be regulated.

The Cabell County Society has appointed a legislative committee of five members to study questions and formulate ideas which they will present to the house of delegates through their delegates. This we think is a splendid idea and if pursued by every society in the state the business meeting in Wheeling will result in much good to the association.

May we hope to have you present these matters to your society and come to the state meeting prepared to make it the best meeting in the history of the society?

Fraternally yours,

C. A. RAY, Chairman
Comm. Legislation & Public Policy.

—

February 20, 1924.

Dear Doctor:

Just a year ago, when the legislature was in session, I turned over the Secretary's records to our new full-time officer. You and I know that we hesitated a good many years before we took that step. And because we all gave an increased amount to put our program in effect and because much of the work is not generally known, I think it is fitting that we check up the situation together.

From the point of view of service we may well mention the legislative work first. Through the efforts of our Society we no longer pay an occupation tax of $10 for alcohol for sterilization purposes. A bill that would have done physicians a grave injustice in malpractice actions was defeated. And from the point of public health, an opposition was defeated that spent thousands of dollars in their effort to break down the minimum requirements of the medical practice act—the public's safeguard from legalized quackery. None of this would have been accomplished without a full-time officer.

In the program of individual services I need not mention those that are already set forth in our Journal. But I can say that this work will be extended. And incidentally, the office handles half a dozen requests a day for purely individual service of all kinds.

From a financial point of view, the full time officer has been an economy. For the first time we have a surplus—and that one of $11,000. The Journal is no longer a heavy financial drain on the Society. From our 1924 dues of $9 the following distribution is made: Journal, $2.00 (to build up a working cash balance to be accumulated this year); Legislative and Lay Educational work, $1.40; Salaries, $1.53, maintaining the full-time of-

fice for service to the members, $1.07; miscellaneous expenses, such as annual meeting, etc., $0.75, and to surplus, $2.25.

While the Secretary proposed a reduction in dues for this year, it was unanimously rejected by the House of Delegates on the grounds that the surplus should be built up to $15,000. A reduction will be available for 1925.

This second month of the new year finds the Society with a comprehensive lay educational program which already is being put into effect. It finds us with a Journal which is constantly increasing in value to us; with an office that is working evenings and Sundays to keep abreast with our demands; and with even more services to the members in sight.

Membership in the Society has passed the stage where it means an engraved certificate. We are now, each of us, members of a group that is dealing with some big group problems. The solution of many of these will be for the public good—the solution of others affects only our individual benefit. We are members of a group that as a group is seeking to serve us and to discharge a public duty. It betters our standing in public estimation.

Let us all give a helping hand where it is needed this year that our Society may continue to progress as it has during the year just past. Specifically, we should have a 100 per cent renewal of our 1923 membership by March 31. Our members should take an interest in the election of members of the legislature to the end that public health laws may be improved. And let each one of us renew our allegiance to our Society—which stands one of the foremost in the nation.

Cordially yours,
ROCK SLEYSTER, M. D.,
Pres. Wisconsin State Medical Society.

—

February 19, 1024.

Doctor James R. Bloss,
Huntington, W. Va.

Dear Doctor Bloss:

Doctor Howard A. Kelly of Baltimore recently gave me a copy of a little poem written by one of his patients. I thought you might be interested in this particular line. It shows a good deal of personal appreciation at any rate.

Very sincerely yours,
JOHN E. CANNADAY.

O Lord!
We who must die,—
Are not afraid of death—
But who love life, as we have known it here;—
We, who are Nature's comrades,
Love alike the sunshine and the storm,
We, who can see Thy face
On mountain tops, and by the sea,
In wood, and field, and thronging city street;—
We, who are lovers
And are well beloved,
Know Friendship's faithful clasp of hand in hand;
We, who have work,
Dear work, that taxes all our powers,
But brings us happiness and great content,
And, nightly, makes our beds delightful to us
We, in whose veins life pulses joyously,
Whose bodies are our servants, tried and true,
Clean, strong, efficient, working out our will;—
When, in our flesh,
Suddenly,
Death appears,
How we do thank Thee
For Thy surgeon, Lord!

We thank Thee for his hands,
Inexorably strong,
Yet artist fine;
Exact and delicate as a mother's fingers are,
When she embroiders, fair, her baby's robe.
We thank Thee for his mind,
Keen as his scalpel,
Careful, sure,
Yet leaping, swift as fire,
To meet new crises as they come,
And, most of all, we thank Thee for his soul
That waits on Thee
And, in Thy strength, is strong, steadfast, serene,
And brave to battle, daily, with grim Death,
To win for us another hour of life.
We, who must die,
Are not afraid of death,
But whose hearts swell with gratitude to Thee,
For granting us again the gift of life,—
By work and love and worship made so sweet,—
We thank Thee for his hands, his mind, his soul,
And pray,
Thy blessing on Thy surgeon, Lord!

—

Inter-State Post-Graduate Clinic Tour to Canada, British Isles, and Paris in 1925 is now being arranged under the supervision of the Managing-Director's office of the Tri-State District Medical Association. The time for leaving will be about the middle of May.

The Tour will consume, approximately, two months time and the total cost from Chicago and back to Chicago again will be less than $1000.00. This will include all clinic arrangements and admissions and all travelling expenses, except meals on Pullmans in America and tips on the ocean steamer. First-class hotels will be used everywhere and the ocean passage will be on the largest and finest of the new one cabin ships.

Clinics are being arranged in Dublin, Belfast, Liverpool, Manchester, Leeds, Edinburgh, Glasgow, Newcastle, London and Paris and other points of clinical interest. The clinics will be conducted by the leading clinicians of these cities. The opportunity will be given, subsequently, to visit the clinic centers in other parts of Europe.

This Tour is open to members of the profession who are in good standing in their State or provincial Societies and their families and friends.

Sight-seeing programs will be arranged, practically, every day abroad, including the most scenic part of the countries visited, without extra cost.

On account of the great demand for reservations, applications should be made as early as possible to Dr. William B. Peck, Managing-Director, Freeport, Illinois. Preference in the assignment of hotel and steamship accommodations will follow in the order in which the applications are received.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

J. E. RADER, M. D.
W. E. VEST } - Assistant Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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PETER A. HALEY

At the time the last issue of the Journal went to press word had come that Dr. Haley was improving after an attack of pneumonia and was thought to be out of danger. A few days later came word of his death.

It is hard for your editor to bring himself to a realization that "Pete" Haley has gone on. On the occasion of our last meeting he was so enthusiastically full of life and in such good health that it seems impossible to think of him as having answered the call of the Grim Reaper.

My acquaintance with him began with the first annual meeting of the State Association after I became a member of it. This acquaintance grew each year until a fast friendship developed — a friendship which has been dear to me.

For a number of years Dr. Haley served conscientiously and well in the Council of the State Association, from his district. His counsel was wise, calm, deliberate. His devo-

tion to the best interests of our profession and the ideals it stands for was unquestioned. For the past few years he has not been so regular in his attendance at the annual meetings and the more recent members have not known him. The older ones recall him with his smile and jovial spirit and warm handclasp and it is with deep regret we realize that we shall not meet him again.

It is a privilege to have known him, an honor to have been his friend.

DR. CASSIUS CLAY HOGG

Dr. Cassius Clay Hogg, 58, for many years one of the best known physicians of Huntington, formerly chief of staff of the medical staff of the West Virginia National Guard, veteran of the Spanish-American war and an otherwise prominent citizen, died at his home, 1314 Tenth avenue, Huntington, Sunday, March 16. Dr. Hogg had been in ill health for several years and for several weeks his death had been expected at any time.

Dr. Hogg was president of the Cabell County Medical Society for two successive terms.

Dr. Hogg was born in Mason county, on a farm near Point Pleasant, July 16, 1866. He was a son of James Hogg and was descended through both the branches of his family from distinguished pioneer stock.

He studied first at Vanderbilt University, Nashville, Tenn., and afterwards fitted himself for his profession at the Ohio Medical College at Cincinnati.

He came to Huntington in 1891, immediately after graduation, and began the practice of medicine. After some time he became associated with Dr. Corydon R. Enslow, now dead, in the firm of Enslow & Hogg. He took a prominent part in the social and political life of the community and practiced his profession successfully.

When war on Spain was declared in 1898 he was one of the many young Huntingtonians who hurried to the colors. He did not see foreign duty but rendered sterling service in combatting the waves of disease which invaded the army cantonments.

Returning to Huntington when the war was concluded he retained his interest in military affairs, connecting himself with the West Virginia National Guard in which he rose with a lapse of the years to the rank of lieutenant colonel, chief of staff, department of medicine.

Dr. Hogg was one of the organizers of the first hospital in Huntington, the historic Huntington General, which had its first home in a building which had been a school house and which stood on the site of the Lecco building on Fourth avenue. He was connected with the Huntington General as long as his health permitted him to practice.

He was a successful man, not alone in his practice, but in business as well and long before his death was recognized as a man of independent fortune.

An ardent Democrat, Dr. Hogg was active in politics, though not an aspirant for office. He was, however, honored by his party, which selected him as a delegate-at-large to the St. Louis convention which nominated Parker and Davis in 1904.

Dr. Hogg was a member of Huntington Lodge No. 53, A. F. A. M., a Scottish Rite Mason, Thirty-second degree and a Noble of the Mystic Shrine.

He never married. In the closing years of his life he made his home on the South Side with his mother, Mrs. Susie Hogg, and his sisters, Miss Lizzie Hogg and Miss Lillie Hogg. He also leaves two brothers, Charles Edgar Hogg, well known Point Pleasant attorney, and Thomas G. Hogg, of Huntington.

SEND YOUR DELEGATES INSTRUCTED

In the Announcements and Communications section you will find a letter from Dr. D. A. MacGregor, Secretary of the State Association, and also one sent out by Dr. Rock Sleyster, President of the Wisconsin Medical Association, to each member of their organization.

It is to be hoped that every member of the West Virginia Medical Association will read these letters, and that during the month of April it will be brought up and discussed by each of the component organizations, and their delegates given definite instructions as to the sentiment of the Society which they will represent at the Wheeling meeting.

We feel along with Dr. MacGregor that an increase of $5.00 per year in the State dues will provide sufficient funds to take on the executive officer for our State Association, and provide means for the securing of offices for the organization, ample to take care of the work. With careful management and the co-operation of all members of the State Association, in securing for membership every eligible physician within the state, it should provide a surplus which we could eventually use for the purchase of our own property, providing a permanent home for all of the records of the Association, and the State Association Library.

Dr. Sleyster certainly gives some very illuminating information as to what has been accomplished in Wisconsin in one year. They are to be heartily congratulated. Your editor feels that while they have several hundred more members than has the organization in West Virginia, yet they have not more enthusiastic or capable ones, and I feel that we can accomplish all that they have, and certainly their accomplishments will inspire us to the effort.

Probably we have seemed at times tedious in each month reiterating this talk on the executive officer. It has only been done because of the recognition of the absolute necessity for us adopting this policy. The West Virginia Medical Association has outgrown the present method of carrying on its work, and will not be able to accomplish the great things before us if we are to go on depending upon the elected officers from among the members to get the results in what time they can spare from their active duties as physicians.

This will be the last opportunity before the Wheeling meeting to bring the matter to your attention in time for the component societies to have meetings and discuss the question. It is earnestly hoped that each Society will do this so that there will not be any question raised when the House of Delegates takes it up for consideration in May, that each society has not had an opportunity to talk the matter over. This

is the most important thing for our Association which will be before us at the next annual meeting. Give it careful, thoughtful, prayerful consideration.

WHEELING MEETING

A communication from Dr. MacGregor fills one with enthusiasm for the time to arrive when we go to Wheeling in annual session. He tells us that there will be a special Eye, Ear, Nose and Throat session this year. This will insure a number of our special men attending. Just at this point it might be added that the Eye, Ear, Nose and Throat men of West Virginia rank very high, and it is certain that their session will be replete with excellent papers and addresses.

Dr. MacGregor also tells us that the meeting will be held in the Market Auditorium, which is a very commodious building.

It was hoped that we would be able to have the program for the coming meeting for publication in the April issue, but it was impossible for the Committee to have it ready in time to use.

CHIROPRACTORS

It is doubted very much if the members of the State Association realize the importance of the action which has been taken by the physicians of Raleigh County in the prosecution of the Chiropractors. A conviction was secured in the local courts but an appeal taken to the Supreme Court of the State on the matter of constitutionality of the Medical Practice Act, and just what it covered, and as to whether or not chiropractors were "practicing medicine" within the meaning of this act. The Association of Chiropractors, both state and national, are leaving no stone unturned to win this suit before the Supreme Court, and have engaged very able legal talent to represent them. This is but one phase of their organization to carry the next State Legislature for their bill. Ever since the last session, at which time, by also superhuman efforts of a few physicians, the chiropractor bill was defeated in the Senate, they have been working tooth and nail building their fences and entrenching themselves for the fight next year. The State organization is in no way taking cognizance, that we know of, of this fight before the court. It is a question if they even know of it. Here again is a very strong argument in favor of a full-time executive officer, who would be closely in touch with the situation and be able to help very greatly in lending assistance to the Raleigh County Medical Society, which seems to be the only Society in the State, except Mingo, which has been able to secure even an indictment under the Medical Practice Act against those individuals, and in Mingo a jury was out only three minutes, bringing in a verdict of "not guilty of illegal practice." The Cabell County Medical Society presented an overwhelming mass of evidence to the Grand Jury of that county, and yet could secure not even one indictment in the face of absolute proof of guilt, as can be seen in either of the daily papers of Huntington, or by watching the signs along the street. This is another thing for us to think about when we go to Wheeling.

THE MEDICAL PROFESSION AND HEALTH OFFICIALS

It must appear to any one of us, who stops to think, that these two professions should heartily cooperate if the greatest benefit is to accrue to those most vitally interested, namely, our citizens.

We fear that this cooperation does not always exist, however. This lack of team work is due very probably to a failure to appreciate the work each is trying to accomplish. Sometimes it has seemed that health officials have been remiss in that they have not gone before their medical society membership and placed the matter of having a better understanding squarely up to the society.

There can be no question, we think, that the future of our profession is to be concerned more and more with disease prevention rather than in treatment. The people are demanding that they shall be kept well in addition to being cured when they do become ill. They are very rapidly coming to the idea of frequent examinations to see that there is nothing "wrong" with them. We see this in the past year or so much more frequently and it is evidenced by the rapid increase in various health institutes, laboratories, etc., which are springing up over the country, these agreeing to examine urine at certain stated intervals and give health advice for so much per year.

If there is any one instance of the family physician's importance to his clientele it is this. No one is in such a favorable position to advise as is he. Yet he is not periodically consulted. There is another fact to be considered. In this we may be criticized in that we do not make our examinations carefully and thoroughly. This is a mistake; they should be very complete.

Were health officials and physicians to understand and cooperate in this work, the duties of the first would be made more satisfactory and results more easy to accomplish; physicians would find that their results would be more gratifying, their incomes increased and their professional work more pleasant—while the public would secure far better health, and, in the long run, more economically.

The presidential address of Dr. E. C. Levy is reprinted in this issue, by permission of the American Journal of Public Health, because of its clear statement of the needs of our two professions for closer cooperation. Read this address. It will make us all think earnestly along this line.

COUNTY SOCIETY REPORTS

Charleston, W. Va.
March 12, 1924.

Dr. James R. Bloss, Editor,
West Virginia Medical Journal,
Huntington, W. Va.

My Dear Doctor Bloss:

I am sending you a report of the last meeting of the Kanawha Medical Society to be put in the Journal. If there is any way that I can cooperate with you in behalf of the Kanawha Medical Society I will be glad to do so.

The meetings of the Kanawha Medical Society are held on the first and third Tuesdays of each month, at the Kanawha Hotel at 8 P. M. The following officers were elected for the year of 1924: Dr. R. D.

Roller, Jr., President; Dr. Lon Carter- Vice President; Dr. W. F. Shirkey, Jr., Secretary. The delegates elected to the state medical meeting are: Dr. W. B. Wilson, Dr. A. A. Shawkey, Dr. W. S. Shepherd, Dr. J. R. Shultz, and Dr. L. L. Aultz. The board of censors are: Dr. G. A. MacQueen, Dr. Chas. O. Grady, and Dr. B. H. Swint.

The last regular meeting was held March 4th at 8:30 P. M. with an attendance of forty. A committee, with Dr. B. S. Preston as chairman, was appointed to plan a meeting of laymen and doctors for discussing ways and means of dealing with the chiropractors and illegal practitioners and also to plan a joint meeting of the Cabell County Medical Society and the Kanawha Medical Society, and also to have at this meeting papers from doctors from nearby cities.

The program for the evening consisted of a symposium on cancer. First paper, "Etiology and Pathology of Cancer," by Dr. Hugh Thompson. Second paper, "Diagnosis of Cancer," by Dr. Chas O. Grady. Third paper, "Surgical Treatment of Cancer," by Dr. R. H. Walker. Fourth paper, "Deep X-Ray Therapy in Treatment of Cancer," by Dr. A. C. Lambert. Fifth paper, "Use of Radium in Treatment of Cancer," by Dr. Wm. A. Thornhill.

The resolution on the death of Dr. P. A. Haley, of Charleston, W. Va., was read and accepted, a copy of which is kept for record, one sent to each of the newspapers, one to the family and one to the State Medical Journal. The resolution is as follows:

Whereas, Divine Providence has deemed it wise to call from the walks of life our colleague, Dr. P. A. Haley; and

Whereas, the members of the Kanawha Medical Society desire to express the high regard and esteem in which he was held by them, their deep sorrow at the loss they have sustained, and to his family profound sympathy in their sad bereavement; therefore

Resolved, by members of the Kanawha Medical Society that in Dr. P. A. Haley we have always recognized one of our most useful members and that he exemplified the highest type of professional character.

To his bereaved family we extend our sincerest sympathy. His life has been to us an inspiration and his memory we shall cherish as a benediction.

The applications of Drs. M. F. Peterson and E. W. Smoot for membership in the Kanawha Medical Society were referred to the membership committee. Dr. O'Grady moved to make Dr. Carlisle an honorary member of the Kanawha and State Medical Societies; the motion was carried. A motion that a legislative committee of five be appointed and that Dr. Grisinger be made chairman and appoint the other four was made and carried.

Meeting adjourned.

W. F. SHIRKEY, JR., Sec.

STATE AND GENERAL NEWS

The next semi-annual examination of the State Board for the Examination of Nurses will be held on Wednesday, April 23rd, at 8 o'clock in the morning, in the following cities: Bluefield, Charleston and Keyser.

The annual business meeting of this Board has been called for the

hour of noon, at the Ohio Valley General Hospital in the city of Wheeling, May 14th, this being the second day of the annual session of the West Virginia State Medical Association.

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Dr. M. L. Dalton, formerly of Floyd, Va., but who is now living in Hinton, W. Va., has just returned from New York City, where he spent several weeks in post-graduate work at the New York Post-Graduate Medical School and Hospital.

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The Ohio County Medical Society had, on January 18th, 1924, Dr. Sheppe, whose subject was "Non-Tubercular Lung Infections."

Dr. Sheppe is the new Patheologist at the Ohio Valley General Hospital. The Doctor talked off hand, and made it clear that it is not safe always to assume everything of a chronic nature happening to the lungs is Tuberculosis, even though it may have the classical symptoms, chronic bronchitis, abscess of the lung, gangrene and a form of yeast fungus were among the complicating factors for a diagnosis. Doctors Gilmore and Keesor made out a good discussion in which others participated. The Doctor made out a good case and was warmly applauded.

On February 1st, 1924, we had with us Dr. F. H. Rimer, of Pittsburgh, Pa., from the Municipal Hospital for Contagious Diseases, whose subject was "Differential Diagnosis of the Acute Exanthema."

Dr. Rimer states his case, giving those listening to distinctly understand his red blood count is around the five million mark. It is take it or leave it with him. Coming from Pittsburgh, where he handles many cases of contagious diseases, he is in a position to have his own statistics, and he has.

It is told of a Wheeling physician who was in court once upon a time as an alienist, that the lawyer on the other side complained that he had not cited his book authorities, whereupon the doctor promptly assured the judge that he had not because he was an authority himself, and could write his own. If we remember correctly the judge agreed with him. Rimer is this sort of a doctor with contagious diseases.

The chances are, if you were called upon to read a paper you would not choose the Acute Exanthema because you would say it was like anatomy, nothing new. Dr. Rimer didn't give any such impression. He diverged to Diphtheria. I will not be able to give a digest, but he said any time you had a "croupy child" who kept on getting worse with a short dyspnoeic cough, and an emetic would not relieve in a reasonable time, you were licensed to give a good big dose of antitoxin without waiting for a laboratory finding, or any other test, because time there was the all-important item. While he said he realized its possibility for grave results, he minimized the anaphylactic side of grave cases and said they happened so seldom in serious cases the condition had to be overlooked. You who have been timorous about dosage would have had to call for restoratives or the ambulance. He has given 200,000 and up to 450,000 units of antitoxin. He has little use for small doses, nor for a number of repeated medium doses. He cannot see that antitoxin is harmful, so why be grudging in its use? He

said a prominent Pittsburgh physician called him one day and said, "Rimer, I won't send you any more cases. You give too big a dose of antitoxin." Two weeks later the same physician called him and said, "Come at once and see my own daughter." He said, "What about what you said the other day?" The physician replied, "The H— with that, come and do what you think best." Dr. Rimer is a straightforward man with few flourishes. He is direct and confident. In some things he may be radical, but he draws from experience and he was very refreshing.

On February 8th, 1924, Dr. Charles A. Wingerter addressed us on the subject of "Hysteria."

Dr. Wingerter is the John Barrymore of the Wheeling medical profession. I believe it was Dr. Charles Clovis here who said to me that he would go to hear Wingerter talk irrespective of what the subject was, just to increase his respect for the English language, and it is very true. The Doctor has the dramatic sense, coupled with the use of the most elegant language. It reminds you of a very clear cool moonlight night, the way he uses our mother tongue, so when he takes up the subject of Hysteria, which is nothing but Ophelia, Lady Macbeth, Desdemona and the others of medical literature and experience, anything I will write will do him little justice. First of all, like Barrymore, he does not overdo it. The subject of Hysteria can easily run into a monotonous recital of tragedy or it can develop into burlesque. The Doctor keeps it in its place as Shakespeare did. He does not hold out a great deal of promise to you to cure your real genuine cases of Hysteria. Relapses, he feels, are quite common and discouraging. Neurasthenia is its chief competitor. I hope the paper, if he has it, gets into the Journal.

The paper brought out a great deal of "reminders" as well as commendation. The majority of the men disclaimed any ability to discuss, as the Doctor makes mental diseases his specialty.

It made a good evening and was one of the kind that made you proud of your society.

March 14th, 1924, we were addressed by Dr. A. J. Goodwin, his subject being "Goiter."

Dr. Goodwin is one of our youngest members, if you can reasonably say that any one from the Mayo Clinic is young. He talked on Goiter, and his paper was discussed by Phillips, Caldwell and Drinkhard. The Doctor is quiet, unassuming, yet sure of his ground. He is on the staff of the Ohio Valley, direct assignment, and is one of the men from whom a great deal is expected.

We have had a few Friday nights when the "house was dark." It is usual in these misfortunes for the President to blame it on the Secretary, and vice versa. Our sympathy goes out to both. The President and Secretary of any kind of an organization has likewise our sympathy these days. We have had a little experience, and of course someone comes along and says now in the old days we filled the house, "Standing room only was the sign we wore out." But nevertheless there is a certain reluctance for men of standing to come long distances to read before a fair sized crowd, to what there used to be, and "home talent" has to work out a good case

to have their colleagues take them seriously, and then they may suddenly find that a few Senator Walshs in the audience want to know where they get it all, and the worst of it is the :'Senator Walshs" themselves have not been conspicuous in the past for writing papers. Not that I do not believe there are "Falls," who get material for papers without giving the proper credit, but we still maintain that most men in any medical society could write a paper if he wanted to.

Being a President is a thankless job in many cases and if a program "goes wrong" a few nights because of cancellations or other reasons, and some men feel they are being deprived of their just dues, why not do as they would in an operating room in an emergency—come forward and say, "Mr. President, if you have an urgent need I'll fill it; I'll write a paper," say on "Tonsils I Have Allowed to Remain." It may not be a good paper, but I have a feeling it will start a good discussion.

Dr. Fulton's Clinic is about completed. It is a handsome structure and might pass for a cozy hotel that they are now building in various parts of the country. It will be well worth your while to see it while in Wheeling. It is useless to deny the fact that the idea is viewed with mingled feelings, just as you saw the department store revolutionize the retail selling. The small store, however, has come back bigger and better in every way. This reporter's personal view is that that is what Dr. Fulton will do for the medical profession in Wheeling. Those that do not make use of this very carefully planned out new departure in medicine will have to provide equally good facilities for diagnosis. This they no doubt will do. In the end everybody will be benefitted. It is only by new things well done that the process of civilization is possible.

Dr. Fulton is now away on a well earned breathing spell. He will come back with a new complexion so that on the opening day his coloring will match the big ruddy carnation he is going to wear.

North Wheeling Hospital with its new wing has been full to such an extent that at times one could not get a room. This hospital accommodates 235 patients. A Statler Hotel boasts of 1000 rooms. This means that the offices of this hospital handles almost one fourth the capacity of an ordinary Statler Hotel. And remember, they are ill. It is a big job, and oftentimes we wonder how they do it.

The Ohio Valley General, which was made to hold 125, has been remodeled in a piece by piece way until it holds 170. Likewise filled.

It seems to us that some tight fisted citizens of this city might awaken to the call and build additions to these hospitals without being asked. Wheeling is one of the richest cities per capita in the United States, yet it is not remembered that we ever had any citizens to give the big sums for hospitals which is common reading elsewhere. If any member of the State Society can enlighten us men up here how to go about it when in Wheeling next May we will appreciate it.

While out of the domain of this department it is suggested that any Doctor in New York City go to a play called "The Outsider," in which the daughter of a London

surgeon falls in love with a "Rubbing Doctor," whom Percy Hammand states received his preliminary education in a Chicago stock yard as a butcher, and report to the Journal what he thinks about it.

A number of Doctors here have read with interest editorials in the "New York Tribune," which went after Chiropractors more violently than any of us have ever dared to do. It insists they be not called doctors or healers at all, but something which will indicate they are dexterous in matters of expert massage, or words to that effect. It admits they have a function, but it is very, very limited.

Dr. Hull, one of our Wheeling Chiropractors, gave his views against putting iodine in drinking water, in the daily press. As we were led to believe he does not use drugs at all, we dare say he has evidently looked into pharmacology after all.

Surrounded by many other pressing matters we still have hopes of having an Academy of Medicine for you to see when you come in May.

The recent meeting of the staff of North Wheeling was made unusually interesting by the exhibition of a baby a few days old with hydro-encephalocele. The case was presented by Dr. Haning.

May 13th, 14th and 15th the State Meeting will be held in Wheeling. Please observe the dates, as they were changed from the first agreed on in June. TUESDAY, May 13th, WEDNESDAY, May 14th, and THURSDAY, May 15th, are the dates. It is held here in Wheeling, but remember it is your Society, and while we will do our very best, we must have you to make it a success. We heard a man talking for the fund for a STADIUM at Morgantown say he had heard it said that West Virginia was the most sectional state in the Union; that we had a Southern end and an Eastern Panhandle and a Northern Panhandle, and a middle part. Let it not be true of us, as I do not believe it is. Wheeling always goes everywhere else—so we expect you to return. That means everyone. Easy to get to good hotels, many points of interest—clubs, theaters—and we believe a fine scientific program. We are united in our efforts to please you and we shall be disappointed if we do not have you all. Why not everybody come? It would be a fine thing to let the body politic see how to get along with the irregulars if only for three days. The State Meeting shows our strength, and, as Dr. Irons says, we certainly need union for strength. The need to see each other to remember how good we are. Scandals in politics and other places make us doubt humanity. Seeing each other face to face is worth three days of any doctor's time. The human contact of your own West Virginian brother practitioner is a big asset for the other 360 days. National meetings are great things, but for your own immediate benefit, your own neighbor's views are of vast importance in these swiftly moving times. We ache for human contact, and it is idle to say this Wheeling meeting will not help you even if you are surrounded by what you think is work you can't leave. Your patients will benefit in the end.

We shall try and have the meeting and the exhibits all in one big building. You can move easily from

one to another. It will all be near the hotels. We shall have exhibits from the hospitals of X-Ray and other pathological specimens and we will be glad to show any you may have if you direct them to us. Always remember it is your meeting, and while naturally Wheeling will have more, since we are entertaining you, yet anything you have to show we will show it.

We harbor the belief you are all coming—view it as a calamity if you allow anything to keep you. Your personality is different from the others, no difference where you are you must have something to contribute to this meeting in some way. On May 13th, 14th, 15th, your State Society is going to show what progress we have made. The meeting is to be in Wheeling, but you are directly a part of its success. It is on you we are counting.

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The following committees have been named for the annual meeting of the West Virginia State Medical Association, Wheeling, W. Va., May 13th, 14th, and 15th:

Executive Committee—Drs. H. P. Linsz, W. T. Morris, Harry M. Hall, E. S. Bippus, J. E. Marschner.

Arrangements—Dr. Harry M. Hall, Chairman; Drs. M. B. Williams,, vice chairman, R. U. Drinkard, J. O. Howells, C. M. Truschel, A. J. Noome, Mathew Zubak.

Entertainment—Dr. W. T. Morris, Chairman; Drs. C. H. Clovis, vice chairman, D. M. Aikman, H. T. Phillips, R. A. Tomassene, T. F. Downing, N. T. Haning. Ladies' Auxiliary Committee: Dr. Elizabeth B. Hupp, Dr. Elizabeth Keay, Dr. Mary B. Monroe.

Finance—Dr. H. P. Iinsz, Chairman; Drs. E. L. Armbrecht, vice chairman, H. W. Bond, C. H. Keesor, W. P. Sammons, Harry Silver, George L. Vieweg.

Reception—Dr. J. E. Marschner, Chairman; Drs. C. Wingerter, vice chairman, G. W. Abersold, W. U. Charleton, J. H. McColl, W. T. McClure, S. W. Tretheway, A. E. Nolte, H. N. Deems, A. T. Ruble, B. D. Morrison, J. A. Campbell, J. T. Carter, J. L. Dickie, J. A. Monroe, Leonard Eskey, J. G. Thoner.

Hotels—Dr. E. S. Bippus, Chairman; Drs. O. D. McCoy, vice chairman, O. M. Staats, H. P. Campbell, W. M. Dalbey, Max Vieweg, T. K. Shields, H. A. Henderson, E. L. Kaufman.

Transportation—Dr. J. P. Cole, Chairman; Drs. R. M. McMillen, A. E. Earnest, A. J. Harness, H. F. Nolte, H. B. Copeland, O. H. Griffith, D. E. Morgan.

CLINICS

General Committee—Dr. Robert J. Reed, General Chairman; Drs. W. S. Fulton, J. W. Gilmore, W. H. McLain, Ivan Fawcett, H. S. West, E. S. Bippus.

Surgical Clinic—Dr. W. S. Fulton, Chairman; Drs. J. Schwinn, G. Ackerman, Frank LeM. Hupp, J. R. Caldwell, J. E. Marschner, E. F. Glass, E. M. Phillips, W. A. Cracraft, E. B. Plant.

Preventative Medicine and Public Health Clinic—Dr. W. H. McLain, Chairman; Drs. Andrew Wilson, J. G. Walden, W. C. Etzler, J. C. Hupp.

Urological and Skin Clinic—Dr. H. S. West, Chairman; Drs. F. E. Roberts, L. N. Harris, A. L. Jones, H. T. Phillips.

Medical Clinic—Dr. J. W. Gilmore, Chairman; Drs. J. T. Thornton, D. A. MacGregor, R. J. Snider,

M. Gaydosh, W. S. Webb, R. M. Peddicord, D. B. Best, J. J. Osborne.

Eye, Near, Nose and Throat Clinic—Dr. Ivan Fawcett, Chairman; Drs. M. B. Kelly, A. L. Coyle, H. E. Oesterling, A. K. Hoge.

X-Ray Clinic—Dr. E. S. Bippus, Chairman; Drs. C. H. Clovis, W. A. Quimby.

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There was a gratifying fall in the mortality from puerperal conditions among the 15,000,000 Industrial policyholders of the Metropolitan Life Insurance Company in 1923, according to the January Statistical Bulletin issued by that company. The death-rate per 100,000 for the year was 17.9 as compared with 19.0 in 1922, and 23.0 in 1920. With the single exception of the year 1916, when the rate touched 17.6, the 1923 figures was the lowest ever recorded among the Industrial population.

Louis I. Dublin, Ph. D., the Metropolitan's statistician, in commenting on the above figures, said:

"Diseases incidental to pregnancy and childbirth are still an important field for public health work. The mortality can be further reduced by greater emphasis on nursing supervision during pregnancy, at the time of delivery and during the immediate post-partum period. Especially encouraging are the lower death rates last year from puerperal septicemia and albuminuria. The former in particular may be brought down still further by the closer attention of obstetricians and health officers to sources of infection."

The decrease in the death rate from puerperal septicemia referred to was from 7.4 in 1922 to 6.9 in 1923. The death rate from puerperal albuminuria and convulsions was 4.2 in 1923 as compared with 4.7 the previous year.

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DEATHS FROM DIPHTHERIA IN FAMILY OF CHIROPRACTOR

To the Editor:—We have recently had an occurrence in this city which deserves some mention. We have here a chiropractor who has persistently advertised in our daily papers, and flaunted in the faces of the public that he has been here for upward of twelve years. Chiropractors are not recognized by the laws of Missouri, and in certain towns they are arrested and fined for practicing medicine without a license; but in this community it is said to be practically impossible to obtain a conviction. A list of convictions of chiropractors in St. Louis has been given to the prosecuting attorney, and it is understood that he has presented the matter to the grand jury, but so far no action has been taken.

About three weeks ago the wife of this chiropractor became ill with diphtheria. It is said that she begged for a physician, but her husband gave her "adjustments" and assured her that she was getting better. When she was practically moribund, her son, it is said, called in two physicians, who gave her antitoxin, although they pointed out that it was too late for it to do any good. The children were also called into the room on the day that the mother died. A few days after, the son became ill with diphtheria. The father called in two consultants, both chiropractors, one from St. Louis and one from Kansas City, and "adjustments" were again done. When this boy was in dying

condition, one of the regular physicians who was called for the mother was asked to see him. He again, in the presence of the three chiropractors, told them that it was too late to do anything, but that he felt it his duty to give antitoxin, as it offered the only possible hope. The boy also died. It is probably needless to add that the antitoxin is charged with having been the cause of death in both cases. One can sympathize with the physicians who were called in; while some of us might have been tempted to refuse to give antitoxin when it seemed evident in both cases that the patients were dying, the honest physician acts on the principle that while there is life there is hope, and tries to save life even though it may appear impossible to do so.

It is perhaps unusual for cases like this to occur in families of chiropractors, where the sufferers could obtain at the earliest moment and without cost the wonderful advantages of spinal adjustments. The question is, Will it teach the people who patronize these cults a lesson?—Mazyck P. Ravenel, M. D., Columbia, Mo., from J. A. M. A.

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Grace Hospital, at Welch, W. Va., is to be opened shortly by Dr. Charles F. Hicks, formerly of Huntington. Dr. Hicks is well known here, as he practiced in the city for a number of years.

More recently he has been connected with the Miners Hospital at Welch, where he has built a wide reputation as a surgeon.

The new hospital in Welch is equipped with modern facilities for modern medical treatment. Miss Mary E. Simpers of the Miners hospital, will be superintendent of the operating room. An aesthetist from Dr. Crile's clinic at Lakeside hospital, Cleveland Ohio, has been brought to Welch, where he will serve on the hospital staff.

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Dr. Edward Stuart of the American Child Health Association, was in Huntington recently conducting a survey of child health in the city.

The aid of Dr. Earl B. Gerlach, city physician, was enlisted. Dr. Stuart also worked through the various social agencies. The survey is being conducted in 86 cities between 40,00 and 70,000 in population in 31 states in the union.

The survey includes all factors that touch child health, including the city health department, board of education, public utilities, especially the water supply, street cleaning, sewerage, garbage disposal, fly and mosquito control, recreational facilities and agencies for economic relief and rehabilitation.

"The cities in the survey have been selected because they are representative of the average American city and its facilities," Dr. Stuart said.

"Coming into a city does not necessarily mean that the American Child Health Association will introduce any of its activities in the city. On the other hand, if the survey shows that there is need for some special service which the association can give to the community or assist in the expansion of health work in any way, we stand ready to cooperate. Our sole interest is in the betterment of child health."

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The announcement of the wedding of Miss Anita Fitch, the attractive daughter of Dr. and Mrs.

F. A. Fitch, of Huntington, to Mr. O. J. Rice, of Cleveland, Ohio, will come as a surprise to their many friends. The wedding took place in Columbus where the bride is attending Ohio State University, and the groom is connected with the United States Tire Company. The bride is a graduate of Marshall College, and attended Lady Jane Gray School, in New York. Mr. Rice is a graduate of Case University in Cleveland. Mr. and Mrs. Rice will reside in Columbus.

MEDICINE AND SURGERY

CALCULOUS ANURIA

Three cases which came to necropsy are reported by David R. Melen, Rochester, N. Y. (Journal A. M. A,. Feb. 16, 1924). In the first case there was a stone in the right ureter, 10 cm. from the bladder, causing complete obstruction to the urinary outflow. There was a reflex anuria in the left kidney. The right kidney, which was about two and one-half times larger than normal, smooth, firm and greatly congested was removed. During delivery of the kidney, the lower pole, which was white and ischemic, separated itself from the rest of the kidney, and came away in a single piece about the size of a lemon. There was no undue traction exerted in bringing the kidney up into the wound. There was very little bleeding from the plane of separation, showing that the blood supply to the entire lower pole must have been shut off. Following the operation, the left kidney, which had been suffering from reflex anuria, immediately began to function. Blood chemistry findings in this case were of great interest and were very helpful in getting a survey of the case. The nonprotein nitrogen excretion increased from 30 to 133.3. On the fifth day of anuria, the day a pyelotomy was done, the retention products had reached their highest point, the creatinin being 19 mg. Forty-eight hours after the urinary flow had been established by operation, this dropped to 6, and from then on gradually to normal. The second case was one of recurrent oliguria and anuria due to bilateral calculous disease. The left kidney was functionless, and the right kidney was a pyonephrosis developed and death resulted from kidney insufficiency. The third case was one of solitary congenital kidney. Anuria was due to calculous obstruction in the ureter of this kidney. Melen also cites two cases which he believes support the theory of the existence of a so-called renorenal reflex. Of all the theories submitetd as to the causation of a renorenal reflex, the circulatory-congestive theory advanced by Frank seems to Melen to be the most logical.

OBSERVATIONS ON CAPILLARY MICROSCOPY IN PREGNANCY

In their studies of capillaries Joseph L. Baer and Ralph A. Reis, Chicago (Journal A. M. A., Feb. 16, 1924), used the apparatus described by Mayer, which consists of a very small electric lamp with a strong convex lens ground in the bulb. This gives a direct ray of approximately 150 candle power. This lamp is held in position by a small metal stand and is placed so that the ray of light and the objective of the microscope are fo-

cused on the same area. Objective 1 and Ocular 4, were used to study the morphology of the capillaries. For observing changes in the capillary flow, higher magnifications were used. The area chosen for examination was the center of the nail fold of the index finger. The authors' findings have been practically the same as those of other examiners. In cardiac decompensation, the loops are greatly dilated and thickened, with marked tortuosity and lengthening. The flow is greatly retarded, and stasis and beading are common; occasionally a reverse flow from the venous arm into the arterial arm could be seen. In a case of acute endocarditis in a boy, aged 15, they found only slight lengthening, but marked tortuosity and irregularity in outline. A case of mitral disease with auricular fibrillation showed capillary loops that were enoromusly lengthened, with dilatation marked in the venous arms. In diabetic patients they found the capillaries short, very thick and with a very sluggish capillary flow. In chronic nephritis, the venous arm is usually dilated and tortuous. Retardation and beading are very common, and often a stasis or reversal of flow can be seen. Figures of eight, clubbed ends and tennis racket forms are also often seen. In a series of normal gravidae and puerperae, the authors found the capillary loops to be approximately normal both as to morphology and as to behavior of the capillary flow. Cases showing albumin and casts in the urine show an elongation of the capillary loops with a slight increase in size in the venous segment. There is also a slight increase in tortuosity, but this is never marked except in cases of true nephritis complicating pregnancy. In cases of toxemia the character of the capillary flow shows more deviation from the normal. Beading, segmentation, retardation, stasis and occasionally a reversal of flow have been noted. These changes found in the capillary loops in the toxemias of pregnancy are most marked during the height of the disease, and improve with general improvement. The authors believe that capillary microscopy, especially when associated with methylene blue and the "freshet" tests, gives us another method that should prove of value in the differential diagnosis of the kidney of pregnancy and true nephritis complicating pregnancy.

A STUDY OF THE ACUTE INFECTIONS OF THE THROAT AND RESPIRATORY SYSTEM

The problems involved in the occurrence and spread of the acute respiratory infections are discussed by D. F. Smiley, Ithaca, N. Y. (Journal A. M. A., Feb. 16, 1924). A monthly record of the acute infections of the throat and respiratory system has been kept for the last four years at the Cornell University medical advisor's office. This record has shown, year after year, a gradual rise to a maximum number of cases in January, February or March, and a gradual fall as summer approaches. An analysis of these records apparently shows that tobacco dust, gas, mouth breathing, sleep, drafts, constipation, perspiration, bathing and footwear are apparently not major factors in determining resistance to respiratory infections in this particu-

lar group. Exercise appears as a liability rather than an asset in this group (probably because of improper care of the body in the stage of fatigue following the usual violent sport). The use of woolen underwear is apparently no panacea for the prevention of "colds;" in fact, it seems almost safe to infer that the use of light underwear is preferable under conditions obtaining at Ithaca. Heredity may be a factor in determining resistance through carrying on to the next generation a "catarrhal diathesis" or the opposite. Since removal of nasal obstructions and diseased tonsils has not resulted in the reduction in the frequent "colds," it seems fair to conclude that nasal obstructions and diseased tonsils are not major factors in the majority of persons suffering with frequent "colds." Of all the factors listed, only one (that of underclothing) showed a difference of more than 15 per cent, and that only 19 per cent. A test of the prophylactic value of the present respiratory vaccines failed to cause any reduction in frequency of "colds" in the majority of cases.

THE SIGNIFICANCE OF STREPTOCOCCUS HEMOLYTICUS IN SCARLET FEVER

It has been demonstrated by A. R. Dochez and Lillian Sherman, New York (Journal A. M. A., Feb. 16, 1924), that the type of hemolytic streptococcus found in the throats of scarlet fever patients is, in general, a specific type readily distinguishable from the types of S. hemolyticus causing other kinds of angina and septic conditions in general. Streptococcus hemolyticus is present in the throats at some time during the course of the disease in every instance of scarlet fever. This streptococcus constitutes a specific biologic type, and is not found in septic conditions other than scarlet fever. By inoculation of guinea-pigs with this streptococcus, a disease resembling scarlet fever in its main features can be produced. Immunization of the horse to the streptococcus in question gives rise to an antiserum which possesses the capacity to blanch the rash locally in scarlet fever and which, when used therapeutically, causes a marked abatement of all the symptoms. But slight evidence of the production of a toxin in vitro has been obtained up to the present time. From the results detailed, it would seem that a specific streptococcus is the cause of scarlet fever, that the disease in its principal characteristics resembles diphtheria, and that both the natural immunity in human beings and the experimental immunity developed by inoculation of animals are antitoxic in nature.

TRYPARSAMIDE IN THE TREATMENT OF SYPHILIS

Joseph Earle Moore, Harry M. Robinson and Albert Keidel, Baltimore (Journal A. M. A., Feb. 16, 1924), have treated eight patients with early syphilis with tryparsamide. Of these, seven had early secondary syphilis, the average duration of infection being three months; the eighth had a seronegative chancre. Tryparsamide was given at weekly intervals in doses averaging 3.3 gm. and ranging as

high as 7 gm. Two patients received six injections; two were given five, and the remainder, two or three each. In six there was no evidence of regression of lesions and in three patients followed with repeated dark field examinations, actively motile spirochetes could be demonstrated in open lesions throughout the period of tryparsamide treatment (three, five and six weeks, respectively). In two instances, slight healing of some lesions occurred, though in both these patients, other fresh lesions appeared during treatment. There were also treated twenty-four patients with late syphilis, in some of whom healing of lesions could be measured; in others, the response of the blood Wassermann reaction or symptomatic improvement (cardiovascular group) constitute the basis for opinion. Tryparsamide was given at weekly intervals without other medication, the dose ranging from 1 to 3 gm. The latter level has not been exceeded. A course of treatment consisted of from four to twelve injections. So far as the healing of lesions is concerned, the results with tryparsamide in cutaneous tertiary syphilis are almost as poor as in early syphilis. In two patients, large gummas were unhealed after eight and nine injections, a total of 16 and 27 gm., respectively, of the drug, though in each instance a little arsphenamin caused rapid resolution of lesions. In a woman with bilaterally symmetrical nodular serpiginous syphilids on both forearms, the lesions disappeared on one arm, while they actually grew worse on the other after six injections of 2 gm. each. In another patient with a leg gumma, healing did occur, but four months (nine doses totaling 17 gm.) were required to produce a result usually obtained with arsphenamin in a few days. In a fifth patient of this group, long free of syphilitic manifestations, an active lesion actually developed during the course of tryparsamide therapy. A number of patients with cardiovascular syphilis were treated. Two of these had aortic insufficiency, two aortitis without valvular lesions, and one a large thoracic aneurysm. Two of these patients died suddenly while under treatment with tryparsamide. In one other patient, decompensation set in during tryparsamide treatment. The remaining two showed marked improvement. The effect of tryparsamide on the blood Wassermann reaction in late syphilis is of interest. In seven of twenty-four late cases, the Wassermann reaction was either negative on admission or had been made so by previous treatment, and remained negative during tryparsamide. A reversal of the Wassermann reaction was accomplished in only one patient; in twelve, it remained persistently positive, while in four, a change occurred toward the positive side of the scale. Two of these patients had negative tests at the start of treatment, which became completely positive during tryparsamide, while in two others the intensity of a partially positive reaction was increased. In patients with gummas, the lesions being in the process of growth, and using an average dose as small as 2.6 gm. (43 mg. per kilogram), there was no evidence that the drug is of value in this stage of syphilitic infection, and in certain instances small doses (2 gm. or less) seem actually to have done harm. Tryparsamide

was administered to three patients with early neurosyphilis. In two of these, the diagnosis was based on positive spinal fluid examinations only. The cytobiology of the fluid was reversed to negative by tryparsamide in one instance, and in the other was markdely reduced. Neither patient developed clinical signs of neurosyphilis during the period of treatment, but in one of them a recurrent secondary skin rash appeared on the day of the twelfth injection of tryparsamide. It was particularly striking that in this patient the drug was apparently successful in controlling the nervous system infection, even though its spirocheticidal properties in the dose employed were so weak that the generalized infection was wholly unimpeded. In case of late neurosyphilis the authors' results are in essential agreement with those of Lorenz and his co-workers. The parenchymatous neurosyphilis group (twenty-seven cases) included thirteen patients with general paralysis or taboparesis, three of whom were juvenile general paralytics; six patients with tabes dorsalis, and eight cases with asymptomatic general paralysis, that is, typical general aparlytic picture in the serology of blood and spinal fluid, but no definite mental or neurologic changes. The meningovascular group included diffuse cerebrospinal syphilis of various types. There is convincing evidence of the beneficial effect of tryparsamide on the cytobiology of the spinal fluid. In fourteen patients with late neurosyphilis, including six from the parenchymatous group (three with general paralysis, three with tabes), and eight from the meningovascular group, all phases of the spinal fluid examinations were rendered completely negative. In the whole group of patients there was only one in whom some improvement in the fluid did not occur as a result of tryparsamide therapy. From the clinical standpoint, ten patients were regarded as arrested, and seventeen as improved, by previous treatment. These results were bettered by tryparsamide. Of eight previously untreated patients, five are regarded as arrested, two improved, and only one as unimproved. From the previously treated group, twenty-two are considered to be arrested, three improved, and four unimproved. Six patients have remained well for as long as three years following the institution of tryparsamide. With regard to the blood Wassermann reaction, a curious phenomenon is observed. In fourteen instances, the test was negative when tryparsamide was begun, and remained so. In eleven, it was positive at the start of treatment, but in only one of these was any change toward the negative phase apparent as the result of treatment. In four patients, the blood Wassermann reaction was negative when tryparsamide was started, and became completely positive during the course, even though in the same patients the spinal fluid was simultaneously changing toward negative. The same type of response was seen in patients with tertiary syphilis, as mentioned above. A comparison of the results obtained with the arsphenamins and tryparsamide, indicates that the use of tryparsamide in patients previously unimproved by intensive routine treatment in neurosyphilis is fully justified. So far as neurosyphilis is concerned, try-

parsamide is more active than any of the arsphenamins. While the place of tryparsamide in syphilotherapy has still to be defined, the authors' experience indicates its value in certain types of neurosyphilis, and leads them to think it a more effective drug than any other now at our disposal. In other forms of syphilis, in which the nervous system is not involved, they have seen no evidence that the drug is of any value, except for its tonic effect in undernourished patients. It appears to be contraindicated in early syphilis because of its comparatively feeble spirocheticidal activity. In tertiary and latent syphilis, also, the experience leads the authors to believe that it is inferior to the arsphenamins, and that, if used at all in this state of the disease, it should not replace the arsphenamins or mercury, but only supplement them. For the present, therefore, its use should be restricted to neurosyphilis, and, possibly, to cardiovascular syphilis. It is emphasized that the use of tryparsamide is to be avoided in all cases in which optic nerve impairment already exists, and it is recommended that during the tryparsamide administration close attention be given to the fundus of the eye and the sight.

THE DIAGNOSIS OF PREGNANCY

The sugar tolerance test was applied by G. C. Milnor and E. A. Fennel, Honolulu, T. H. (Journal A. M. A., Feb. 16, 1924), in cases in which it was important to make a diagnosis concerning pregnancy before the physical signs permitted. Excluding cases of hepatic disease, carcinoma of the alimentary tract and hyperthyroidism, they have performed this test on thirty-eight normal women, either pregnant or nonpregnant. Of the thirty-eight women, eighteen proved, in the course of events, to have been not pregnant, sixteen proved to be pregnant, and four were lost to further observation. Of the eighteen nonpregnant women, seventeen gave a negative test, i. e., developed no glycosuria and one gave a doubtful reaction. Of the sixteen women proved to be pregnant fifteen gave positive reactions and one a negative one. This failure is interesting since the test was performed ten days after the first coitus and five days after the first missed menstrual period. The authors' experience with phlorizin has been disappointing. In seven cases of proved pregnancy five gave positive reactions and two very doubtful ones. Of twelve nonpregnant cases including three men all gave positive reactions except two women. In making the simple sugar tolerance test they use from 50 to 100 gm. of glucose, depending on the weight of the patient. The blood sugar at the forty-five minute period is the most important of the three estimations; the other two may be omitted if time and circumstance demand it. The authors found that nausea or vomiting if present in the pregnant patients, rather regularly occurs at the forty-five minute period at the height of the blood sugar curve They have found that the sugar tolerance test is of great practical value during the first three months of pregnancy, and that the positive reaction usually disappears thereafter, but fre-

quently reappears during the last two months and persists several weeks after parturition. A large meal, rich in carbohydrates, may be substituted for the glucose. In two cases of suspected abortion, the test has been positive and the histologic examination of curettings has discovered syncytial and decidual cells. The assumption that in pregnancy the permeability of the kidney cells, per se, is increased, the authors believe to be unwarranted. It is, however, on such a basis that the rationale of the phlorizin test is based. It seems to them more reasonable to postulate, in pregnancy, an imbalance in the internal secretory mechanism in this newly acquired physiologic state, and again in the later stages, preceding lactation. Such disturbances of internal secretion might well be looked for in the ovary, liver, thyroid and pancreas. It seems more reasonable to suppose that the mobilization of carbohydrates in liver and muscles is disturbed, and that the addition of an insult of 100 gm. of glucose rapidly brings the blood sugar content to the point of intolerance. The conservative mechanism then permits an overflow of sugar into the urine and frequently a disgorging of the remainder of the excess in the stomach.

MENINGO-ENCEPHALITIC LESIONS AND PROTOZOAN-LIKE PARASITES

Meningo-encephalitis lesions and protozoan-like parasites have been found by E. V. Cowdry and F. M. Nicholson, New York (Journal A. M. A., Feb. 16, 1924), in the brains of apparently normal laboratory animals commonly employed for experimentation. The lesions in question are not confined to rabbits, but occur also in mice which likewise show every appearance of being healthy. They were of the characteristic meningeal, perivascular, focal and subependymal types. Lymphocytes predominated, and polymorphonuclear leukocytes were of rare occurrence. Protozoan-like parasites were found in the brains of mice which exhibited lesions. In shape, they resembled straight or slightly curved rods. Measured in stained preparations after Zenker fixation, they were, on an average, from 1.8 to 2 microns in length and from 0.5 to 0.8 micron in diameter. Both ends were bluntly and uniformly rounded. Very rarely were pear-shaped parasites seen, or forms with pointed ends. They stained blue by Giemsa's method, pink with eosin, intensely red with fuchsin, and were somewhat resistant to decolorization by Gram's method. They exhibited marked internal organization in the possession of a well defined mass of material that stained intensely by both acid and basic dyes. Usually this was spherical, and was located at a point distant from one extremity by about one third of the total length of the parasite. Occasionally, this nuclear-like mass was divided into two parts, one situated at each end. Sometimes approximately one half of the length of the parasite was stained strongly, the other half very lightly. In all cases a fairly definite membrane limited its protoplasmic contents. The parasites were seen free and within the macrophages in areas of infiltrations, as well as in very characteristic

cysts, which, in addition to being associated with the infiltrations, were found in other parts of the brain, which showed no reaction to their presence. Other observers have termed this organism Encephalitozoon cuniculi.

THE SURGICAL TREATMENT OF ORGANIC EPILEPSY

In the thirty cases analyzed by L. Pierce Clark, New York (Journal A. M. A., March 8, 1924), all but one were due to cranial trauma. In all instances the lesion induced was immediate and palpable. In general, surgical operation was undertaken soon after the injury. In the majority, the predominant symptom was convulsive, although minor symptoms of impaired physical or mental functioning were also present. The convulsions were focal in character, or general with focal onset. In no instance did the lesion or site of injury really belie the clinical symptoms shown in the nature of convulsions, and so far as localization was concerned the injury or subsequent cerebral damage did not differ from that indicated by the clinical data. However, the clinical symptoms seemed to give no clue to the extent or degree of lesion. The operations invariably showed up lesions beyond repair. They ranged from extensive inflammatory thickening of the membranes and cortical tissues to that of deep injury, cysts or actual loss of cerebral substances. However, even trephine operations failed to disclose anywhere near the actual extent and degree of injury, as revealed at necropsy. Obviously, the seizures were not even checked for a time after operation. The degrees of injuries susceptible of necropsy analysis in twenty-one of the cases were of the following nature: injury to membranes only, two cases; injury to membranes and cortex, eight; injury to membranes, cortex and deeper parts of the brain, eleven. The lesions of the last group were most frequently conditions of cerebral softenings. Some of the lesions found at necropsy were evidently of too recent a character to have been either a part of the original trauma or of the operation directly as such. Clark summarizes as follows: Ordinarily essential epilepsy is not operable. Operation on pure jacksonian epileptiform convulsions without loss of consciousness is to be undertaken only when spasm is definitely local or has a distinct and constant focal onset. Then, preferably when there is an after-defect of paresis or sensory loss which is more or less enduring, such operation belongs properly in the domain of brain surgery per se. Cases in which there are both grand mal and jacksonian attacks, with or without loss of consciousness, are operable only after the most careful estimate of the localizing symptoms and their clinical significance as to disease of brain structure. Often the cerebral lesions indicating symptomatic epilepsy are too remote or extensive for surgical removal. The greatest surgical care is necessary in handling the brain tissues, and this often applies to the membranes quite as specifically as to the cortical tissues themselves. Drainage disposal for the exudates already present or surgically induced must be properly met in every case. Cysts and adhesions are

often prevented in this manner. Their absence lessens cortical irritation.

OSSIFICATION IN A CHALAZION

The case seen by Walter Scott Franklin and Frederick C. Cordes, San Francisco (Journal A. M. A., Feb. 16, 1924), clinically had all the characteristics of a chalazion with a history of seventeen years' duration. The question of trachoma can be ruled out, as both conjunctivae were negative, no lines of atrophy being present. Microscopic examination showed true bone formation. An osteoma can be eliminated, the condition not being congenital but having developed following a "stye." It is assumed that this was an old chalazion in which the granulation tissue during a period of years took on the properties of ossification. Search of the literature failed to show a similar case.

METASTATIC BASAL CELL CARCINOMA FROM THE SKIN

Two cases are reported by Clark W. Finnerud, Chicago (Journal A. M. A., March 8, 1924), which illustrate the fact that it is possible for basocellular epithelioma to form metastases. The cases reported are basal cell epitheliomas of the face, with metastases in the submaxillary regions, apparently in submaxillary lymph glands. The cystic character of the metastatic tumor is of interest, comparing favorably with one of the pathologic peculiarities of primary basal cell growths. Reports of but five other cases of metastatic basal cell carcinoma were found in the literature, and conclusive proof that such a condition existed was found in only one of these cases.

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SYMPOSIUM ON LUMBAR PAIN AND ITS RADIATIONS

Read Before the Medical Society of the District of Columbia, January 9th, 1924.

THE OSTEO ARTICULAR FACTORS IN THE PRODUCTION OF BACK PAIN

By CUSTIS LEE HALL, M. D.
Washington, D. C.

In consideration of the causes of back pain, the many conditions met with in the anatomical construction of the dorsal lumbar and sacral-segments, the X-ray is of course the final resort in many cases, as the appearance of stiffness and a painful back does not give us a clue, except in a general way, as to the conditions that may be present. There are many factors which may produce back pain. These are usually divided for convenience into traumatic, postural, mechanical and arthritic. First, under the head of traumatic, the cause may be a sudden twist, a fall, lifting of some heavy object or a direct blow. The muscular fatigue attendant upon over-exertion may easily produce strain on the ligamentous structure and as a result we may have a chronic or acute low back strain and which, if recurrent, the condition may become very severe. This condition is usually evidenced by the presence of muscular spasm, which is a protective function accompanied by limitation in the normal range of motion of the spine. Occasional referred pain may be associated with this condition, the sciatic nerve be-

ing the usual point of irritation. Again faulty posture with either an increasing of the lumbar curve or lordisis, or a flattening of the lumbar curve may throw such a strain upon the muscular and ligamentous structure of the spine that we may have a gradual development of such symptoms as are frequently characterized as a lame back. Attention to the posture of the individual with corrective exercises will entirely relieve the majority of these cases. The influence of relaxed and pronated feet or sagging knees and general relaxed posture upon the spine are seen constantly and serve to remind us that these individuals are unable to bear up under the stress of activity of normal life without back pain. It is interesting to note that in the study of X-rays of the spine in the lumbo-sacral region we constantly meet with mechanical peculiarities from our standard of normal. Among these may be enumerated the long impinging transverse process of the fifth lumbar vertebra which often produces extreme type of back pain. Then we may have a peculiar or a typical formation of the sacro-iliac joint which allows greater mobility of one side, resulting in strain and its attendant symptoms. We see also the individual with an unstable spine, that is, the formation of the fifth lumbar vertebra is anomalous and this may take the form of the sixth lumbar vertebra or a sacralization of the fifth lumbar vertebra or as is sometimes seen, the narrow sacrum deeply set between the wings of ilium and sometimes called lumbarization of the first sacral segment. Occasionally we see a tilt forward of the pelvis at such an angle that the inclination is for the last lumbar vertebra to slide forward on the sacrum giving us an exaggerated lumbar curve. This condition is called spondylolithesis. Lateral X-rays of the sacrum will sometimes show the condition very plainly. Unrecognized fractures of the transverse processes due to unusual muscular activity are many times overlooked. Dislocation of the articular facet of one of the lumbar vertebra can rather easily result in some individuals, from unusual muscular activity. Compression fractures of the body of the vertebra are many times overlooked and may result from apparently trivial trauma and should always be thought of, in back ache, associated with injury. Occasionally impingment of one spinous processes upon another may result in a rather marked and troublesome back ache. Actual dislocation of the sacro-iliac joint usually follows a severe direct blow and its symptoms seen as a result of unusually severe trauma during delivery. Relative relaxation of the sacro-iliac ligaments and its attendant tenderness and back discomfort is probably more common than generally believed and is many times overlooked, and may be the cause of the commonly associated neuritis of the sciatic nerve.

Arthritic conditions in the lumbar spine are very common in middle aged and elderly people and oftentimes in a young adult. The most common type met with probably is the osteo-arthritic and the symptoms usually found are a limitation of motion, pain following use, muscular spasm, morning stiffness and in many cases a tendency for a list. Long continued back pain in the middle age or aged which fails to respond to conservative fixation

and rest, when there has been a history of hereditary malignancy, it is well to consider a secondary metastatic growth in the spine. The X-ray may show an overgrowth of the vertebral margins on one side of the spine only and these cases may have similar X-ray appearance to that of osteo-arthritis. Structural scoliosis with rotation may easily produce chronic back ache and may oftentimes be overlooked unless a careful examination of the spine is made early. Tuberculosis without the the formation of a kyphos is often seen and would be characterized by persistent pain, distortion of the spinal curve, marked muscle spasm and rigidity of the whole spine. The site of this type of tuberculosis is usually nearer the centrum of the vertbera than in the more common type, where the inter-vertebral disc and the body of the vertebra anteriorly is involved in the destructive lesion. Lues can affect the spine in a rather characteristic manner. Usually the area of discomfort is sharply localized and is discovered by the site of the pain and a local stiffness. The remainder of the spine, above and below, usually shows a muscular hypotonic condition with a hyper-mobility. Charcot spine is rather rare and is not particularly painful except when there is considerable distortion of the spinal column to produce a nerve trunk irritation or a list with its attendant muscle strain. These briefly are the conditions which can be met with in a back which gives us symptoms of pain and disability varying in degree. It is also becoming more generally known that a greater proportion of the so-called sciaticas have as their cause some abnormal condition in the lower portion of the spine and pelvis. The more liberal use of the X-ray will many times bring out a definite cause for a back pain or a referred sciatica which will enable us to handle the large number of individuals suffering from back ache, with a greater degree of scientific knowledge and, accordingly, greater percentage of relief accorded our patients.

SACRAL BACKACHE OF INTRA-PELVIC ORIGIN

By ALBERT L. STAVELY, M. D.
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In a consideration of sacral backache of intra-pelvic origin it is possible to state without fear of contradiction that almost every lesion therein located may be associated with the symptom either as a reflex or from traction, pressure or inflammation.

It is now generally understood that backache situated above the sacral or lower lumbar region is not related to gynecological or other conditions located in the pelvis.

In consequence of a general physical or nervous exhaustion following on the trail of some pelvic disorder, a backache of a more generalized character may develop.

The physiological functions of menstruation and labor are so frequently associated with backache that it may be considered a normal concomitant in the modern woman.

Dysmenorrhœa, with which backache is so often a conspicuous and varied symptom, is found with stenosis of the cervix, spasmodic contractions of the uterus, obstructions from clots, swollen endometrium or fibroids, congestion of the uterus,

functional or dependent on inflammation or displacements, endocrine disturbances and certain other ovarian pathology.

The opinion has been expressed that these backaches may be caused by an over-relaxation of the sacro-iliac joints during menstruation. Some women, who are chronic backache complainers, are sometimes relieved for a time after the establishment of and after the flow, due unquestionably to the relief of engorgement.

In labor the distress may be low down in the lumbar region; later under active dilatation over the sacrum and coccyx.

The stretching and separation of the recti muscles so often found after labor, develop an enteroptosis, which results in an ache, which starts just above the sacrum and travels downward along the iliac crests toward the bladder.

Retroflexion is often not an acquired condition and in the absence of unusual symptoms cannot be considered pathological.

In a large percentage of retrodisplacements sacral backache is a prominent symptom and is mainly dependent on the drag on the ligaments and the congestion, dependent on the changed position. It is especially common where there is an associated chronic peritonitis and adhesions or perimetritis.

The ache is central, quite diffuse and ordinarily easily differentiated from the sacro-iliac variety.

Graves thinks that in uncomplicated cases the backache may be a referred pain emanating from that very sensitive area, the internal os. It is aggravated on exertion or standing and is not always relieved by rest, though the prone position is helpful.

Correction of the misplacement should abolish the symptoms.

The old idea that backache is due to pressure of the uterus on the sacral nerves should not be considered too seriously.

A chronic cervical catarrh, resulting from an old tear or a gonorrheal or other infection, may never cause any definite ill health. A large number, however, ultimately start up a lymphatic infection, involving the utero-sacral ligaments and the posterior parametrium. The ligaments become infiltrated and later shortened and sometimes we find the uterus pulled backwards.

There is tenderness along the ligaments and posterior to the uterus and most frequently a backache with tenderness on either side of the second sacral vertebra.

A simple test is to place the examining finger in the posterior fornix and pull the cervix forward. If this produces pain and backache, we may be sure we are on the right track.

Sometimes when we find the utero-sacral ligaments shorter and thicker than normal, a history of unnatural sexual performances may sometimes be obtained. Correction of these will relieve the backache.

Endometritis, per se, is not a frequent cause. Associated with an acute or chronic metritis, the inflammatory changes and increased weight of the uterus are very productive of backache.

Tumors of the uterus, by their weight and downward pressure or by direct contact with the sacral nerves, where they emerge from their foramina, are often responsible for an uneasy or aching back.

Prolapse of the uterus causes a dragging on the utero-sacral ligaments and congestion in the organ itself and visceral ptosis. As a consequence a backache develops, which may be described as a dull ache or heaviness. This is easily relieved, when the patient goes to bed.

Sometimes after a poorly performed hysterectomy, where the vagina is not properly supported, a patient will suffer from the same annoyance.

The ovaries, like the uterus, are ordinarily insensitive and unless they become involved in a pelvic infection or are bound down by adhesions or sustain a twist of the pedicle, are not of particular interest in this discussion.

The prolapsed, the cirrhotic, the small polycystic ovary and the one with a dense capsule sometimes causes discomfort and occasionally a cyst will do the same.

The Fallopian tubes, the seat of an acute or chronic inflammation develop pain and backache, mainly from involvment of the investing peritoneum.

Cancer of the uterus in its early stages is symptomless. It is only when there is extensive infiltration of the parametrial tissues, the bladder, the bowel or pelvic nerves that the poor patient is rendered a helpless invalid and suffers excruciatingly from backache and pains in the legs or along the crest of the ilium.

A cause of backache which might be mentioned, is varicocele of the broad ligaments. Varicosities are found most generally with other conditions and it would be wise not to attach too much importance to their presence. It has been suggested that the so-called ovarian neuralgia might be explained in this way.

While diseases of the alimentary canal are little concerned with the production of pelvic backache, there are some found in the pelvis which may be considered properly here. One is acute appendix of pelvic location.

Splanchnoptosis, with all of its associated bad symptoms, may by pressure on a not too well suspended uterus, develop a sagging, which will be productive of a well defined backache.

Fecal accumulations in chronic constipation may throw the uterus out of place or by pressure cause discomfort in the back, especially so in the presence of pelvic infiammation.

I am taking the liberty of referring to the sigmoid as a pelvic structure and mention it in connection with rectal and anal pathology as a cause of backache.

In regard to the sigmoid Lynch says that if stricture is situated there the pain is referred to a point on either side of the sacral vertebra just at its junction with the last lumbar. This is due to the strictured portion of the sigmoid becoming invaginated in the rectum when, as a result of pulling on the mesentery, pain is caused.

To make the statement more inclusive, the back symptoms may be induced whenever the sigmoid is pulled upon, whatever the cause. If the stricture is situated in the

rectum the mesosigmoid may be pulled upon in the act of defecation in much the same way as though the obstruction were higher up. It is much worse when the lower bowel is overloaded.

In fissure in ano exposure of a nerve may transmit pain to the sacro-iliac region. It is not unusual to misinterpret this symptom and refer it to a diseased ovary. This may be demonstrated easily by the disappearance of the pain after proper treatment of the fissure.

Hemorrhoids, proctitis, cancer and ischio - rectal inflammations should be mentioned in this summary.

The urinary apparatus contributes its share to the spinal ache. Ureteral calculus, ulcer or cancer of the bladder, stone and prostatitis may be referred to.

To make a brief summary, sacral backache is very common. It may be diffuse or localized, dull or severe, temporary or constant. Much of it is due to intrapelvic conditions, more of it is due probably to sacro-iliac strains and some to mixed factors. It is found especially in these conditions: Retro-flexions of the uterus; tumors by pressure on sacral nerves or by their weight, dragging of a uterus with relaxed ligaments and incompetent pelvic floor; chronic endocervicitis with parametrial exudates and involvment of the utero-sacral ligaments; cancer of the uterus and rectum, representing pain of a severer type; acute peritonitis or the chronic form with its resulting binding down and permanent displacement of pelvic structures, and meso-sigmoid or rectal tugging.

LUMBAR PAINS AND THEIR RADIATIONS INCLUDING SCIATICA — NEURO-MUSUCLAR FACTORS.

By TOM A. McWILLIAMS, M.B., C.M.
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Reproaches against our profession because of alleged ineptitude regarding lumbar pains and their radiations may I believe be founded upon inadequacies of diagnosis due for the most part to want of knowledge of neurological signs as well as of broad general training. Only by careful consideration of the subjective as well as of the objective signs may an adequate diagnosis be reached in many cases.

The anatomy of the spine and nerve roots must be thoroughly known to begin with, because upon anatomical relationships depend some of the disease-bearing factors. For example: As the spinal root leaves the meninges carrying with it a prolongation thereof it is subjected intensely to whatever may affect these. It is there that the roots begin to be affected by meningeal syphilis, which is revealed by the earliest signs of tabes dorsalis (Paresthesiae or diminution of sensation), sometimes before interruptions of the reflex arcs are manifest. It is in this situation too that the tubercular process first embeds the spinal roots, giving rise to backache or fleeting pains, which are too often neglected or loosely looked upon as hysterical. A very careful clinical study with the most minute attention to changes in the sensibility is required, but this must be supplemented by knowledge of the significance of subjective signs, for in-

stance as to the character of the shooting pains, their location, their provocation by sneezing, coughing and straining. Among the valuable objective signs are modifications of the pilomotor reflex and of the vasomotor local responses, which may alter before demonstrable changes in sensibility. When these latter are well established and are segmental, it is usually easy to tell in which root or roots the affection lies. When the spinal cord itself is implicated this becomes still more easy, as in the case of extra-dural growth reported here last year which Dr. Horgan so successfully removed.

The radicular syndrome above mentioned has to be distinguished from peripheral neuritis. A table of the differential signs is subjoined.

SYNDROME	NEURITIS	RADICULITIS
Definition	Irritation of peripheral nerves	Irritation of spinal root.
PATHOGEN—Toxine	The usual cause	Doubtful.
1. Chemical poisons—alcohol or metals, especially arsenic or lead	Frequent	Doubtful.
2. Diffuse — Bacterial poisons aside from local exudation especially diphtheria and influenza	Occasional	Doubtful.
3. Metabolic poisons — Lithemia, Arthritis	Occasional	Doubtful.
4. Endocrine unbalance	Possible	Doubtful.
5. Focal infection	Occasional	Doubtful.
Tuberculosis	Scarcely	Frequent.
Syphilis	Rarely	Commonest cause.
Neoplasm	Occasional	To be suspected.
Physical agencies — cold, trauma, etc.	Occasional	Especially trauma.
Concomitant of arthritis	Of the neighborhood	In the spine.
PATHOLOGY	Usually degenerative from toxicosis, by strangulation by neurodocitis.	Often inflammatory; by strangulation by inflammatory or neoplastic compression.
ONSET	Often abrupt	Insidious.
SYMPTOMS—Pain	Except in plumbism or pure motor N.	Usual when posterior root is implicated.
Tenderness	Characteristic, especially of deep tissue	Absent or minimal.
Conductivity	Impaired	Impaired.
Hyperaesthesia	Except in early stages, irregularly, progressive	Except in early stages, irregularly, progressive.
SYMPTOMS Sensory dissociation	Not usual but sometimes pseudotabetic but never truly of tabetic type.	Occasionally of syringomelitic type in tubercular R. Of tabetic type in syphilitic R.
MOTOR WEAKNESS	Usual	When anterior root affected, best marked in tubercular R.
ATROPHY	Severe except in mild cases of long duration.	Less evident except in tubercular R.
DEFORMITY	Contracture and stretching of tendons and ligaments.	Contracture and stretching of tendon and ligaments less marked.
REFLEXES	Impaired except at first	Impaired.
TROPIC CHANGES	Early and evident	Scarcely.
EXTENT	According to distribution of nerve affected. In polyneuritis more marked peripherally.	In the segmental distribution of the roots affected.

SYNDROME	NEURITIS	RADICULITIS
SPINAL FLUID	Normal	Pleocytosis, Inc. Globulin, Specific reactions.
DIAGNOSIS	Increased deep tenderness or without hypaesthesia. Syndrome conforms to distribution of peripheral nerves.	Hypaesthesia both cutaneous and deep. Syndrome conforms to distribution of roots.
DIFFERENTIAL DIAGNOSIS	From trauma, osteitis, arthritis, myositis, meningitis, poliomyelitis, encephalitis, myetitis	From the same.
PROGNOSIS	Highly favorable upon removal of cause.	Unfavorable in proportion to destruction of sensory fibers. Favorable as regards motor fibers except when dense cicatrices have occurred.
TREATMENT	Elimination of the pathogen. Metabolic regulation. Physical agencies to stimulate local nutrition.	Removal of the pathogen. Rest of the regions affected.

More delicate is the differentiation of radiculitis from what Sicard has called funiculitis. This is his name for compression or inflammation of the nerve while passing through a fibrous or bony canal. Facial paralysis and meralgia paresthetica are the best known examples of this.

One differentium from vertebral radiculitis is increased albumin in the spinal fluid without morbid increase of cells, but this picture is also frequently seen after cerebral commotion. But the local signs are more valuable here than the examination of the spinal fluid, except for its negative value. The chief of these is localized pain in movement along with reflex spasm of the adjacent muscles. Frequently there are faulty attitudes of the spine, shoulders and lower limbs which are automatic adjustments to minimize discomfort.

A characteristic sign is alteration of gait with scoliosis of the trunk usually towards the affected plexus with a compensatory scoliosis higher up in the spine away from the affected side.

Only when the disease process is advanced is there a loss of the reflexes, usually beginning in the Achilles.

Hence, the clincial picture is not difficult to simulate, and sciatic neuritis became the commonest affection entering the neurological services during the trench warfare on the French front.

There were three types of this, one which is free from pain while at rest, one which improves with exercise and one which is much aggravated by exercise or movement. Hence it is wrong to treat all cases of sciatica by immobilization.

Striking successes occur by utilizing this fact in dealing with sciatica. It is this type of case from which so much credit is gained by manipulators, and by operators who inject air, stretch the nerve and so on.

When the pain of a sciatica is very intense and the disease originates within the spinal canal, a very effective method is the injection of the epidural space with an isotonic saline solution through the caudal foramen. This has been used for a number of years by Sicard with satisfactroy relief. Recently Forrestier of Vichy has done the same thing in the lumbar and dorsal re-

gions to a single intravertebral foramen. He has tested this by using a radio-opaque solution as a diagnostic measure of the penetrability of the space.

Through rest, attention to general health and sometimes massage and passive movements, the tenderness of lumbar nerves usually subsides before long. But the vicious attitudes may become habitual and these induce discomfort and pain, so that the patient may continue to complain after the first cause has ceased. A species of malingering may be added to this also, motivated by desire for sympathy, compensation or to aggravate others. It is a matter concerning which the most delicate discrimination is required, and a study must be made not only of the neurological signs, subjective as well as objective, but of the patient's motivations as well. But the finding of these latter may lead to error, and this is frequent where compensation is in question.

An example of this, a beneficiary of the Veterans' Bureau was half believed to be a malingerer during a four years pilgrimage through their various hospitals. The X-ray plates (shown) reveal deformation of the left articular processes of the fourth and fifth lumbar joint, which was looked upon as a possible congenital anomaly. But a careful study made me believe that in spite of interested motivations, there was a local irritation provoked when the patient made a false step. As a result a fixative operation was undertaken and the patient completely relieved.

A most instructive diagnostic problem too is the following:

Miss W. H., 41, was seen in consultation with Dr. R. W. Conklin at George Washington University Hospital, November 19, 1923, because of persistently increasing pains in the loins and vaginal and pubic parasethesiae, besides difficulty of urination, all of which had lasted about a month. Latterly the pain had shot down the thigh and anterior part of the leg to the great toe. Four years ago similar pains had been removed by a chiropractor.

Examination showed the deep reflexes were greater on the left side than the right with the exception of the Achilles, where the left was absent and the right very faint. The plantar reflex was equivocal, while in the left the two outer toes extended. The abdominal reflexes were curiously modified. To a light stroke the upper right was absent and the lower right much exaggerated while on the left side the lower reflex was diminished, the upper more normal. To a heavy stroke the only modification was an absence of the right upper reflex.

The sensibility on the left side was modified as follows: Pain was aggravated by sneezing. The lower sacral domain was hypoaesthetic to cotton and hyper-aesthetic to pin prick. In the first sacral area, there was also a hyperaesthesia to pin prick except mesially, where sensibility was diminished. There was a very marked loss of vibration sense in the fifth lumbar distribution on the left. The left calf was inconstantly tender to pressure only in its middle.

Motility. Adduction and abductors were less powerful on the left than the right thigh. The movements of the left leg were weaker than the right.

The diagnosis made was a radiculitis probably of infectious origin contributed to by the long continued standing in the heat while watching a procession.

The patient was examined a week later because she also complained of pain in the neck but this I attributed to the withdrawal of spinal fluid some days before. In this spinal fluid, 16 cells per cm. and an increase of globulin might have been attributed to blood contamination. The right Achilles was absent, only the left plantar reflex flexed distinctly, on the right there was a tendency to extension especially in the other toes. The abdominal reflexes responded better though the right upper was still diminished. There was no diminution of sensation anywhere, but there was still a hyperaesthesia of the left thigh to prick and of the calf to deep pressure. The patient also complained of tenderness in the right thenar region.

Diagnosis. This was looked upon as an organic condition, viz: an inflammation of the lower spinal nerve root predominating upon the left side and probably due to an infective process elsewhere, perhaps in the tonsils before their removal. The reasons for this were the impairment of the Achilles reflexes, the inequality of the knee reflexes, the absence of the plantar flexor, the hypoaesthesiae and paraesthesiae in the distribution of the lower sacral nerves, the tenderness in the mid calf and to pin prick in the situation noted above. In the presence of these indications the pains and Dejerine's sneezing sign were highly significant.

That the lesions were inflammatory was indicated by their amelioration in a week and their eventual recovery. In this respect the case may be compared to one seen with Dr. Mason and described at the Medical Soicety in a paper on Polyneuritis of Infectious Origin some two years ago (published in N. Y. Med. Jour. 1922), in which a general infection causing radicular pains began to improve immediately after treatment and cleared up in less than a month.

In this case, probably of a more acute character, the process of immunity production and resolution of the effects of the infecting organism required only a short period. That the period coincided with the rectification of a painful psychic episode need not allow the latter to mask the neurological picture set forth in the examination nor to invalidate the diagnosis of radiculitis, for the improvement had already set in before the psychological aspect of the case had been dealt with.

Often mistaken for neuritis is a local or diffuse aching of the muscles. Sometimes this is aggravated by pressure but sometimes pressure gives relief. Myositis is the cause usually, the etiology of which is generally a metabolic or toxic state. While heat and counter-irritants relieve, it is best to seek and remove the cause also. Many cases might be cited did time permit.

REMOTE FACTORS OF PAIN IN THE BACK

W. CABELL MOORE, B.A., M.D., F.A.C.P.
Washington, D. C.

Pain is a symptom only, not a disease, but unless the condition causing it is acute and the pain se-

vere, a pain in the lower back does not always receive from the attending physician the attention it deserves, for though one of the commonest complaints, it is a subject that has been much neglected by the average physician. When not due to injury, the cause may be difcult to determine, and may require considerable study. The more common non-traumatic conditions causing pain in the lower back may be grouped as follows:

1. Constitutional diseases, such as acute infections.
2. Faulty posture resulting in muscle strain.
3. Focal infection, resulting in infectious myostitis, arthritis, or neuritis.
4. Chronic infection of the spine, tuberculosis, syphilis, osteomyelitis.
5. Tumor growth.
6. Intra abdominal and pelvic pathology.

The history alone will furnish a fairly accurate provisional diagnosis, but the true diagnosis will depend upon a history, a careful physical examination and laboratory tests, including as a rule a complete blood examination, a urine analysis, a blood Wassermann, an X-ray examination and possibly an examination of the cerebro-spinal fluid. The history should include information as to the character of the pain, whether it is constant or intermittent, sharp or dull, the exact location of the pain, the length of time it has existed, the way it originated, whether it came on suddenly after a blow or an accident, or developed gradually, whether it is present while the patient is up and moving around, and knowledge of any other factors concerned with increasing or alleviating it, as position, heat or movement.

The physical examination need not begin with an examination of the back itself, but should be designed to detect superficial as well as other evidence of disease. An eruption, such as herpes or dermatitis, a contusion or swelling or undue prominence of a vertebra are direct indications of the nature of the trouble. The exact location of the painful point or points, the effect of moving the body in various directions, and the presence of muscle spasm on one or both sides should be noted. These are valuable aids in determining the character of the lesion and especially in differentiating an organic from a functional affair. Fever is an indication of a constitutional disturbance, of which, as a rule, there is also other evidence, tonsillitis, sinusitis, bronchitis or a body eruption. The backache associated with the ordinary acute infectious diseases is often extremely acute and the thing of which the patient may complain the most. It is the result of toxemia, of course, but how and why it acts in this way has never been made clear. The presence of fever and other evidence of a constitutional disturbance in one with a backache of recent and sudden occurrence is sufficient usually to determine the cause in these cases.

Just as arthritis in other parts of the body may be secondary to focal infection, so the possibilities of focal infection as a cause of arthritis or neuritis or myositis in this region must be kept in mind and the examination must include a search to locate possible infection elsewhere as the cause of the pain in the back, especially chronic tonsillitis or sinu-

sitis, or periapical infection involving devitalzed teeth. Sometimes the pain arising from focal infection is acute and of sudden onset, and severely disabling; at other times it may be chronic, and liable to acute exacerbations, and because of the length of time the condition has existed a secondary focus is likely to have been started in one or the other of the various joints of the lower back, so that removal of the original focus does not always result in as much benefit as had been hoped. It is by no means unusual to find X-ray evidence of osteo-arthritis of the spine in elderly people, who complain of a chronic lame back, and almost invariably the history or the examination will indicate that focal infection with or without strain may have been the cause. Lumbago is a handy and acceptable term to use in describing such a backache to laymen, and often therefore the situation is allowed to rest at this, but as a rule lumbago, unqualified, is not an accurate diagnosis. Whatever the condition is, a myositis, a fibrositis, a neuritis, or an arthritis, it is generally the result of focal infection plus exposure or strain. The focus may be in the intestinal tract, and stasis is said to play a part at times, but oral infection is much more likely to be the cause. Myositis or fibrositis may be recognized as a rule by the acuteness of the condition, the history and the fact that it is practically always bilateral.

Other infections to be kept in mind as conditions likely to affect the lower back and produce pain or lameness and a certain amount of invalidism are tuberculosis, syphilis and osteomyeltiis. Disability from these causes devleops slowly and is a chronic, long drawn out affair. Osteomyelitis of the spine occurs rarely and is generally secondary to a focus elsewhere, or to a general septic infection. Tuberculosis of the spine is fairly common in children with tumor formation or caries of the bone as the result. The latter has certain fairly definite symptoms, such as pain, spasm, guarded gait, sometimes known as military gait, kyphos and possibly increased knee kicks, Babinski and clonus. The history, an X-ray examination and the signs mentioned enable a diagnosis to be made. An accompanying lesion in the lungs or elsewhere is found frequently.

One of the most distressing causes of backaches, other than that due to direct injury, is a tumor growth affecting the spine. Carcinoma or sarcoma of the spine may be primary, but is generally secondary to a primary focus elsewhere, more frequently in the uterus or the breast of women, and in the prostate in men. Metastasis to the spine may occur early and there is early neurological evidence of organic disease of the spine in altered reflexes and disturbances of sensation. The presence of a malignant growth elsewhere makes the diagnosis certain long before the X-ray will show evidence of pressure effects on the bones, or the spinal fluid show abnormality. Primary tumors of the spine are also by no means uncommon (see Williams, T. A., W. Va. Med. Jour., 1923). They occur at any period from infancy to extreme old age, but are found most frequently between 20 and 60 years.

Accurate diagnosis is not as easy as it sounds, and much time may be spent in this study before the diagnosis is clear.

LUMBAR PAIN—CHEST FACTORS

By P. ROY ADAMS, M. D.
Washington, D. C.

Disease of the thoracic viscera is a relatively infrequent cause of lumbar pain. Spondylitis or tuberculous disease of the abdominal and pelvic viscera and lymph nodes, in the adult, are usually associated with pulmonary phthisis. The lung condition is however of importance only as an indirect etiological factor in the production of lumbar pain. Its existence is of interest chiefly because of the light it throws upon the character of a lesion in a bone or viscus which occupies a more strategic position for the production of pain in the lumbar region.

Syphilitic and rheumatic lesions of the heart occupy a similar place. When lumbar pain exists in association with cardiac lesions the relationship is not one of effect and cause. Accompanying the cardiac disease are changes of the lumbar spine or muscles in the nature of a spondylitis or fibrositis. The latter factors are direct determinants of the lumbar pain.

Dilatation of the heart with marked enlargement of the liver or spleen or both produces pain in the abdomen which may spread to the posterior nerve branches.

Subacute and chronic non-tuberculous lesions of the lung are rapidly assuming a much more important position in lung pathology than they formerly occupied. Under this head I include bronchiectasis, lung abscess, imperfectly healed pneumonia, and infiltrated lung in relation to obsolete, localized empyema. Such lesions are relatively common. They are infected and subject to acute exacerbations. The prevailing organisms are streptoccocus hemolyticus and viridans, staphylococcus, and pneumococcus. Therefore in addition to their importance from a pulmonary standpoint they must be regarded as infected foci as capable of producing lumbar pain as focal infections elsewhere.

The chest factors just considered bear a more or less remote causal relation to the condition under discussion. Acute or chronic inflammatory processes of the viscera adjacent to, and involving this organ, often are referred to the neck, abdomen and lumbar region. The central part of the diaphragm is supplied by the phrenic, receiving fibers from the 3rd, 4th and 5th cervical nerves. Irritation of this part of the muscle is felt at the peripheral distribution of these nerves along the border of the trapezius muscle. The outer portion is supplied by the lower dorsal nerves. Irritation in this locality is felt as pain in the lower thorax, abdomen as far down as the pelvis, and in the back. While considerable has been written and said about pneumonia being mistaken for acute abdominal conditions, little attention has been paid to a similar mistake with regard to lumbago. Fortunately, error in the latter case is not fraught with such serious consequences as are likely in the former. It is of interest that lumbago and torticollis are the two most common manifestations of fibrositis. When the two co-exist or alternate, one's mind naturally turns to the diaphragm, with its peculiar innervation, as a likely seat of trouble. When one considers the fre-

quency of empyema and of old fibrotic changes in the base of the lung causing irregularities and pull upon the diaphragm, some at least, of the chronic complaints directed at the lower back may be explained.

DISCUSSION ON LUMBAR BACK PAIN

By THOMAS MADDEN FOLEY, M. D.
Washington, D. C.

Mr. President, Ladies and Gentlemen:

The subject of lumbar pain is so interesting and so much can be said in opening the discussion, but not in the time allotted, therefore I will confine my remarks to that feature which consists in the mechanics of lumbar pain. As Dr. Williams has said the anatomical construction of the spine, i. e., the wide intervertebral spaces precludes any possibility of pinching of the spinal nerves as they emerge from the foramina. Also Dr. Stavely has demonstrated that a gravid uterus has been discounted as a cause of pain by pressure backward on the sacral plexus. This leads to the question, What is the cause of pain in the cases of osteo-arthritis? I mention osteo-arthritis because of the many causes of back pain that the orthopedic surgeon has to deal with, osteo-arthritis is the most common. My opinion is that there is a contiguous inflammation extending from the inflamed joint to the nerve as it emerges from the spinal foramina and that this causes the pain. We may discount pressure of spurs or knobs of bone; we may eliminate subluxations, if such a thing were possible, because it is easy to demonstrate that a nerve may be displaced considerably from its original bed without any discomfort being experienced. A valuable fact in the diagnosis and treatment of osteo-arthritis of the spine is that a support of some kind, if it is only the mattress on the bed, relieves the pain. I think that the symposium was a very valuable contribution and was well presented.

HEAD INJURIES

Read Before the Cabell County Medical Society, March 13, 1924

By R. J. WILKINSON, M.D., F.A.C.S.
Huntington, W. Va.

The management of head injuries along lines of modern day teaching is quite a departure from the practice of a few years ago. Probably no branch of surgery has made more forward strides than this particular one and the reason can be attributed to the fact that during more recent years some of our leading men have specialized in this field with the result that there is a clearer understanding of the existing pathology in these cases. The present day industrial development and especially the prevalence of automobiles has greatly increased the number of head injuries and the probabilities are that there will be an increasing number during the succeeding years.

Every practicing physician may be called at any time to render service to one of these unfortunate individuals, therefore, he should have a fair knowledge of the existing pathology and be able to recognize some of the more prominent symptoms so that treatment can be in-

stituted early. Nothing can be more pathetic than to see a person mentally deficient on account of lack of proper treatment following a brain injury. To this group can be added the mentally defective infants who have received brain injuries at birth which have not been recognized and consequently not treated.

It must be understood that we are not concerned about a fracture of the skull unless it be either a compound or depressed fracture. The real pathology that requires early recognition and treatment is intracranial pressure or brain compression. This increased pressure may be produced by a depressed bone, intra or extra dural hemorrhage or to the more common condition, namely, brain edema. This edema results from lacerations and contusion of the brain with rupture of small blood vessels. These are so-called concussion cases and the extent of the edema is in direct proportion of the amount of injury to the brain at the time of the accident. It must also be borne in mind that in receiving a compound or depressed fracture we may have considerable drainage to the brain at a point some distance from the site of the injury, producing a picture that may be misleading due to the slowly developing general edema. It is obvious then that a simple elevation of a depressed bone or closing a compound injury may not by any means meet every indication for treatment. If the best results are to be anticipated it is essential that we be able to make an accurate diagnosis and be equipped to conduct a refined operative procedure when indicated.

A careful history is important, for we must know if unconsciousness has been present, and, if so, the time of onset and duration; if paralysis is present, the time of appearance and the group of muscles first affected. The immediate shock following an injury to the head tends to lessen the functions of the brain and it is unusual to get edema for several hours after the injury, therefore, we should not expect any definite eye ground changes until this condition develops unless it be in a large hemorrhage or depression producing marked pressure. It would seem then that one of the first indications in handling a case of this kind is to carefully note the condition of the discs. This examination should be repeated frequently as a progressive blurring or congestion is indicative of increasing pressure.

A lumbar puncture with a careful examination of the pressure is one of the most useful diagnostic aids we have. If the pressure is above 15 mm. mercury, as shown by a spinal manometer, it can be considered abnormal.

A careful half-hour record of the patient's pulse gives us useful information in many cases, especially when associated with other symptoms of increased pressure. Immediately following the injury there is usually a rapid pulse due to shock, but as the pressure increases we get a slowing in rate probably due to a stimulation of the vagus center. If this pressure continues to increase without relief we get paralysis of this center with a rapid pulse. I believe we are safe in saying that a pulse once slow on account of pressure and then becomes rapid, or as high as 120, before relief is offered, is evidence of medullary edema and a fatal termination.

A careful neurological examination should be made early and repeated certainly each day or oftener if necessary. For by this means we are able to detect a weakness of certain muscles, as well as changes in the reflexes, which is invaluable in localizing brain lesions.

The first indication in handling a head injury is to combat any existing shock by the use of morphine, hot water bottles and saline. During this stage all unnecessary handling or examining should be dispersed with. The condition of the eye ground should be noted as well as the reflexes, and this can be done without disturbing the patient. After the shock subsides the question of X-ray can be considered, while satisfying to the laity, yet our experience has been that it offers very little except in those cases where a depressed bone is suspected. Of course, if there is a definite indication of a large extradural hemorrhage immediate treatment is imperative, however these cases are rare and one can be governed by the history, muscle weakness or paralysis and very early eye ground changes.

In the concussion cases, if the pulse is slow and full, it has been our practice to do an immediate lumbar puncture, withdrawing from a few drachms to an ounce of fluid and repeating daily or oftener if indicated. It is surprising how instant the relief is in the majority of these cases, consciousness frequently returns instantly and the pulse increases from ten to twenty beats per minute. If, after several punctures, the pressure remains high, we unhesitatingly recommend a subtemporal decompression, not only for the immediate effects but as a safeguard against permanent brain damage that may materially impair the patient's mentality should he survive.

The operation is done preferably on the right side in right handed individuals unless there is some contraindication as laceration or contusions of the scalp which would materially increase the chances of infection. A vertical incision is made one-half inch anterior to the external canal extending from the zygoma upward for five or six inches—the fibers of the temporal muscles are divided and the periosteum shoved back; the cranium is opened by use of a Hudson drill and enlarged by using Ronger forceps to the size of a silver dollar or larger if the indications jusitfy. All bleeding is controlled by ligature, packing and the use of Horsley's bone wax. The dura is then incised, care being exercised not to puncture or injure the cortex, later this is cut in a stellate manner exposing the cortex. A small piece of rubber tissue is introduced under the tempero-sphenoidal lobe and brought out at the lower angle of the wound. The muscle is carefully sutured with cat-gut as is the fascia, the skin is closed with interrupted horse hair or silk worm gut. This drain should be removed within twenty-four hours.

If the brain appears dark and dry and herniated into the nick of the dura, tapping of the ventricle is indicated as this will lessen the pressure and prevent serious damage to the delicate cortex. These are the cases in which a guarded prognosis should be given and unless relieved fairly early a bilateral decompres-

sion should be done. Those cases in which we find an abundance of fluid with a wet brain seem to improve rapidly after being decompressed.

Compound fractures should be operated within the twelve hours regardless of the presence of shock. A thorough debridement should be done and the wound freely cleansed with Dichloramine T solution, all detached fragments of bone should be removed and the dura closed tightly if possible, with the idea of preventing infection and a hernia of the brain should pressure develop later. Likewise the skin should be sutured, preferably without drainage. If seen late and there is evidence of beginning edema a subtemporal decompression is indicated and should be done. The same rule applies in dealing with a depressed bone, except the decompression should be done first so the brain will pull away from the decompression, thereby lessening the danger of injury to the cortex at the time of elevating this bone.

In handling fractures of the base with rupture of ear drums, or into a sinus, a most careful technique should be used to prevent infection, the ear should not be washed or cleansed, only apply lightly a piece of sterile cotton which can be changed frequently. Since this is in truth a decompression, no effort should be made to stop the flow of fluid. A careful mouth toilet should be insisted upon.

Unless profoundly shocked all of these cases should be put in high head elevated position as it tends to lessen the amount of blood to the brain, consequently is useful in controlling hemorrhage and subsequent edema.

In this brief paper I have tried to bring to your attention some of the outstanding diagnostic methods and outlined what we believe to be a safe method of treatment. I am especially indebted to my friend and former tutor, Dr. C. C. Coleman, of Richmond, for the many valuable suggestions he has given me regarding the diagnosis and treatment of head injuries. During the past four years we have had an opportunity to study sixty of these cases with definite increased pressure or with demonstrable fracture. Our results have been most gratifying and I attribute our good fortune to Dr. Coleman's teaching rather than to any effort on my part. I regret that time will not permit me discussing these cases in full.

In conclusion let me emphasize the importance of early recognition of brain pressure and the immediate relief of same if we hope to save lives and to prevent the horrible condition of an altered mentality in a large number of cases.

PROGRAM FOR THE FIFTY-SEVENTH ANNUAL CONVENTION OF THE WEST VIRGINIA STATE MEDICAL ASSOCIATION, WHEELING, W. VA., MAY 13, 14, 15.

Tuesday, May 13th, 1924

8 A. M. to 10 A. M.—Clinics at Wheeling Hospital and Ohio Valley General Hospital.

10:30 A. M.—Call to Order—Dr. Robert A. Ashworth, President.

10:35 A. M.—Invocation.

10:40 A. M.—Presentation of the Keys of the City—T. F. Thoner, Mayor of Wheeling.

10:45 A. M.—Address of Welcome—Dr. Wm. T. Morris, President Ohio County Medical Society.

10:50 A. M.—Response on Behalf of the State Medical Association.

11:00 A. M.—"The Cancer Problem" (Lantern Slides)—Dr. Jos. C. Bloodgood, Prof. Clin. Surgery, Johns Hopkins University, Baltimore, Md.

Tuesday Afternoon, May 13th

1:30 P. M.—"Some Borderlines in General Medicine"—Dr. C. A. Ray, Charleston, W. Va. Discussion—Dr. H. M. Hall, Wheeling, W. Va.; Dr. F. LeMoyne Hupp, Wheeling, W. Va.

2:00 P. M.—"The Relation of Laboratory to Clinical Work"—Dr. C. E. Gable, State Department of Health, Charleston, W. Va.

2:30 P. M.—"The Evaluation of the Peritoneum in Medical and Surgical Practice"—Dr. J. J. Schwinn, Wheeling, W. Va. Discussion—Dr. Wm. W. Golden, Elkins, W. Va.; Dr. Chester Ogden, Clarksburg, W. Va.

3:00 P. M.—"The Management of Small Renal and Ureteral Calculi" (Lantern slides)—Dr. Hugh Cabot, Dean of Medical College, University of Michigan, Ann Arbor, Mich.

3:30 P. M.—"Some Problems in the Diagnosis of Gall Bladder Surgery as Seen by the Internist"—Dr. John Phillips, Cleveland Clinic, Cleveland, Ohio.

Tuesday Evening, May 13th

8:00 P. M.—General Session, public invited.

1 — Presidential Address — Dr. Robert A. Ashworth, Moundsville, W. Va.

2—Oration on Surgery—Dr. M. V. Godbey, Charleston, W. Va.

3—Oration on Medicine: "Some Considerations Regarding Diseases of the Heart and Circulation"—Dr. Alfred Stengel, Prof. of Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Medical Section

Wednesday A. M.—May 14th

9:30 A. M.—"Psychotherapeutic Foundations"—Dr. Tom Williams, Washington, D. C. Discussion—Dr. Chas. A. Wingerter, Wheeling, W. Va.

10:00 A. M.—"Spasmophilia"—Dr. J. T. Thornton. Discussion—Dr. Claude Holland, Fairmont, W. Va.; Dr. A. A. Shawkey, Charleston, W. Va.

10:30—"A Case of Primary Adeno-carcinoma of the Lung"—Dr. M. I. Mendelof, Charleston, W. Va. Discussion—Dr. G. W. Barksdale, Charleston, W. Va.

11:00 A. M.—"The Early Diagnosis of Pulmonary Tuberculosis"—Dr. Walter E. Vest, Huntington, W. Va.

11:20 A. M.—"Consultant Service for Tuberculosis Clinics"—Dr. Harold Brown, Pittsburg Tuberculosis League, Pittsburg, Pa.

Discussion of papers by Dr. Vest and Dr. Brown—Dr. E. E. Clovis, Hopemont, W. Va.; Dr. Jno. W. Gilmore, Wheeling, W. Va.

Medical Section

Wednesday P. M.—May 14th

1:30 P. M.—"Primary Syphilis, Present Day Methods of Early Diagnosis" (Resume of 100 consecutive dark fields)—Dr. Rudolph Ruedeman, Huntington. Discussion—Dr. Howard T. Phillips, Wheeling, W. Va.

2:00 P. M.—"The Treatment of Kidney Infections"—Drs. J. C. Matthews and R. M. Bobbitt, Hunting-

ton, W. Va. Discussion—Dr. Oliver D. Barker, Parkersburg, W. Va.; Dr. L. N. Harris, Wheeling, W. Va.

2:30 P. M.—"The Treatment of Diabetes by the General Practitioner"—Dr. L. C. Davis, Fairmont, W. Va.

3:00 P. M. — "Infectious Diarrhea"—Dr. Claude L. Holland, Fairmont, W. Va. Discussion—Dr. J. T. Thornton, Wheeling, W. Va.; Dr. A. A. Shawkey, Charleston, W. Va.

3:30 P. M.—Adjourn to Surgical Section to hear Dr. Carl A. Hamann's paper on "Surgery of the Gall Bladder and Biliary Passages."

Eye, Ear, Nose and Throat Section
Wednesday A. M., May 14th

10:00 A. M.—"The Slit Lamp in Practical Opthalmology"—Dr. Ivor G. Clark, Columbus, Ohio.

10:30 A. M.—"Acute Mastoiditis"—Dr. Chas. S. Smith, Beckley, W. Va.

11:00 A. M.—"Some Original and Other Ideas About Chronic Tonsillitis"—Dr. J. K. Guthrie, Martinsburg. W. Va.

11:20 A. M.—"Ocular Disturbances Resulting From Intranasal Pressure and Sinus Involvment."—Dr. C. B. Wylie, Morgantown, W. Va.

1:00 P. M.—"Bronchoscopic Aspiration in Diseases of the Chest"—Dr. R. M. Lukens and Dr. W. F. Moore, Bronchoscopic Clinic of Jefferson Hospital, Philadelphia, Pa.

2:00 P. M.—"Remote Symptoms of Sinus Infections"—Dr. G. Bache Gill, Washington, D. C.

2:30 P. M.—"The Oculist as Consultant in Cases of Head Injuries"—Dr. E. D. Wells, Huntington, W. Va.

3:00 P. M.—"The Accessory Sinuses, An Argument for Conservative Treatment Based on Anatomical Facts"—Dr. R. A. Tomasene, Wheeling, W. Va.

Surgical Section
Wednesday A. M., May 14th

8 A. M. to 10 A. M.—Clinics at Wheeling and Ohio Valley General Hospitals.

10:00 A. M.—"The Advantage of Ethelyene Anesthesia in Poor Risk Surgical Cases"—Dr. John E. Cannady, Charleston, W. Va.

10:30 A. M.—"Fifteen Years' Experience with Spinal Anesthesia"—Dr. A. P. Butt and Dr. Chas. Groomes.

Discussion of papers by Drs. Cannaday, Butt and Groomes—Dr. R. D. Roller, Jr., Charleston, W. Va.; Dr. J. R. Shultz, Charleston, W. Va.; Dr. E. B. Henson, Charleston, W. Va.; Dr. F. LeMoyne Hupp, Wheeling, W. Va.

11:00 A. M.—"Dilated Cecum"—Dr. Wm. R. Goff, Parkersburg, W. Va. Discussion—Dr. G. A. McQueen, Charleston, W. Va.

11:30 A. M.—"Retrodisplacement of the Uterus"—Dr. B. H. Swint, Charleston, W. Va. Discussion—Dr. J. E. Cannaday, Charleston, W. Va.; Dr. J. Ross Hunter, Charleston, W. Va.

Wednesday P. M., May 14th

1:30 P. M.—"The Treatment of Compound Fractures" — Dr. R. J. Wilkinson, Huntington. Discussion—Dr. J. E. Cannaday, Charleston, W. Va.; Dr. W. W. Golden, Elkins, W. Va.

2:00 P. M.—"Acute Abdominal Injuries" — Dr. C. G. Morgan, Moundsville, W. Va. Discussion—Dr. P. D. Barlow, McMechen, W. Va.

2:30 P. M.—"Surgery of the Stomach" — Dr. W. S. Fulton, Wheeling, W. Va. Discussion—Dr. A. J. Noome, Wheeling, W. Va.; Dr. Wm. R. Goff, Parkersburg, W. Va.

3:00 P. M.—"Pre-operative and Post-operative Care of Cases in Abdominal and Pelvic Surgery"—Dr. Chester R. Ogden, Clarksburg, W. Va. Discussion—Dr. A. J. Noome, Wheeling, W. Va.; Dr. Robt. J. Reed, Wheeling, W. Va.

General Session

3:30 P. M.—"Surgery of the Gall Bladder and Biliary Diseases"—Dr. Carl A. Hamann, Dean of the Medical College of Western Reserve University, Cleveland, Ohio.

Wednesday Evening, May 14th

7:00 P. M.—Banquet to visiting doctors and ladies at the Scottish Rite Cathedral, 83 14th St.

General Session
Thursday A. M., May 15th

9:00 to 10:00 A. M.—Session of the House of Delegates. Election of Officers and Business Meeting.

10:00 A. M.—"Post-Graduate Medical Extension in West Virginia"—Dr. M. L. Bonar, West Virginia University, Morgantown, W. Va.

10:15 A. M.—"Twenty Minutes with the Day Book"—Dr. C. H. Maxwell, Morgantown, W. Va.

10:35 A. M.—"The Irritable Bladder"—Dr. J. C. Reynolds, Bluefield, W. Va. Discussion—Dr. R. M. Bobbitt, Huntington, W. Va.; Dr. F. E. Roberts, Wheeling, W. Va.

11:00 A. M.—"Syphilis in Its Surgical Aspects"—Dr. Albert J. Rutherford, Welch, W. Va. Discussion—Dr. Howard Anderson, Marytown, W. Va.; Dr. Harry G. Camper, Welch, W. Va.

11:30 A. M.—"Acute and Chronic Brain Injuries in Newborn Babies, Children and Adults"—Dr. Wm. Sharp, Prof. Neurological Surgery, New York City, N. Y.

Thursday P. M., May 15th

1:30 P. M.—"How Can We Prevent the Spread of Gonorrhea in Women?"—Dr. H. G. Steele, Bluefield, W. Va. Discussion—Dr. Edw. H. Richardson, Baltimore, Md.; Dr. J. Howard Anderson, Marytown, W. Va.

2:00 P. M.—"The Pathological Endometrium" (Lantern slides)—Dr. F. C. Hodges, Huntington, W. Va.

2:20 P. M.—"The Endometrium From a Clinical Viewpoint"—Dr. W. N. Rowley, Huntington, W. Va.

2:40—"Adequate Obstetric Surgery in Birth Canal Wounds"—Dr. Robert J. Reed, Wheeling, W. Va.

Discussion of papers by Drs. Hodges, Rowley and Reed — Dr. Wm. Sheppe, Wheeling, W. Va.; Dr. Wm. A. Thornhill, Charleston, W. Va.; Wr. Wm. R. Laird, Montgomery, W. Va.; Dr. F. LeMoyne Hupp, Wheeling, W. Va.

3:20 P. M.—"Extra-Uterine Pregnancy"—Dr. W. H. Wallingford, Princeton, W. Va. Discussion—Dr. J. E. Coleman, Beckley, W. Va.; Dr. Chas. N. Scott, Bluefield, W. Va.

3:50 P. M.—"The Technique of Elective Version (Lantern slides)—Dr. Irving W. Potter, Buffalo, N. Y.

8:00 P. M.—Reception and dance for visiting doctors and ladies given by the Ohio County Medical Society at the Fort Henry Club, 14th and Chapline Sts.

PROGRAM FOR VISITING LADIES

Tuesday, May 13th

2:30 P. M.—Public Lecture on "Prevention of Cancer"—Dr. Jos. C. Bloodgood, Baltimore, Md.

(Market Auditorium)

8:00 P. M.—Public meeting of the West Virginia State Medical Association.

Presidential Address—Dr. Robert A. Ashworth, Moundsville, W. Va.

Oration on Surgery—Dr. M. V. Godbey, Charleston, W. Va.

Oration on Medicine: "Some Considerations Regarding Diseases of the Heart and Circulation" — Dr. Alfred Stengel, Prof. of Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Wednesday, May 14th

1:30 P. M.—Visit to Moundsville penitentiary. Automobiles will start promptly at 1:30 from the McLure Hotel. Guests will assemble in the ladies' drawing room of the hotel.

3:30 P. M.—Reception and tea at Moundsville, W. Va., by the Ladies' Reception Committee of the Marshall County Medical Society.

7:00 P. M.—Banquet to visiting doctors and ladies at Scottish Rite Cathedral, 83 14th St.

Thursday, May 15th

2:30 P. M.—Reception and tea at the Wheeling Country Club by the Ladies' Reception Committee of the Ohio County Medical Society. Automobiles provided for the transportation of the guests will leave the McLure Hotel at 2:00 P. M. Guests will assemble in the ladies' drawing room of the hotel.

8:00 P. M.—Reception and dance given for the visiting doctors and their ladies by the Ohio County Medical Society at the Fort Henry Club, 14th and Chapline Sts.

Note—All meetings will be held in the Market Auditorium. The Medical Section will meet in the hall at the northern end of the building. The Surgical Section will meet in the hall at the southern end of the building. The exhibits and demonstrations will be found in the large hall between the two.

All papers by our own society members will be limited to twenty minutes and discussions to five minutes. This rule will be strictly enforced by the chairman, as the number of papers scheduled requires a rigid adherence to the program as outlined.

Note 2—Realizing that mistakes and omissions are almost unavoidable in preparing a program, the committee invites you to send corrections and criticisms to the Secretary, Dr. D. A. MacGregor, Wheeling, W. Va.

April 14, 1921.

Dr. Jas. R. Bloss, Editor,
W. Va. State Medical Journal,
Huntington, W. Va.

Dear Dr. Bloss:

Enclosed herewith you will find a list of the component societies, giving the names of their officers and delegates. It occurred to me that this would be suitable material for the Journal. I suggest that an editor's note be placed at the bottom of the list asking the Secretaries who have not reported to send in their reports to me in time for a complete list to be made up for our program.

Our completed program is enclosed also. I hope that you will

find it in good form and in ample time for the printer.

Very sincerely yours,

D. A. MacGREGOR, Secy.
W. Va. State Medical Association

NAMES OF THE OFFICERS OF THE COMPONENT SOCIETIES OF W. VA. STATE MEDICAL ASSOCIATION AND THE DELEGATES AND ALTERNATES ELECTED TO THE ANNUAL CONVENTION.

Barbour - Randolph - Tucker Society—President: Dr. C. H. Hall, Elkins, W. Va.; Vice President: Dr. C. B. Williams, Philippi, W. Va.; Vice President: Dr. J. L. Miller, Thomas, W. Va.; Sec.-Treas.: Dr. J. C. Irons, Dartmoor, W. Va.; Delegate: Dr. F. K. Lyon, Parsons, W. Va.; Alternate: Dr. J. L. Miller, Thomas, W. Va.

Brook County Society — President: Dr. B. F. Harden, Wellsburg, W. Va.; Sec.-Treas.: Dr. W. T. Booher, Bethany, W. Va.; Delegate: Dr. B. F. Harden, Wellsburg, W. Va.; Alternate: None reported.

Cabell County Society — President: Dr. Tom Moore, Huntington, W. Va.; Vice President: Dr. C. G. Willis, Huntington, W. Va.; Secretary: Dr. Oscar B. Biern, Huntington, W. Va.; Treasurer: Dr. R. M. Bobbitt, Huntington, W. Va:; Delegates to Convention: Dr. Jas. R. Bloss, Dr. R. J. Wilkinson, Dr. Walter E. Vest, Dr. F. O. Marple, Huntington, W. Va.

Doddridge County Society—President: Dr. A. M. McGovern, West Union, W. Va.; Vice President: Dr. E. T. Wetzel, West Union, W. Va.; Sec.-Treas.: Dr. A. Poole, West Union, W. Va.; Delegate: Dr. A. Poole, West Union, W. Va.; Alternate: Dr. Homer Freeman, West Union, W. Va.

Eastern Panhandle Society — President: Dr. W. H. Crumb, Martinsburg, W. Va.; Vice President: Dr. B. B. Ramon, Harpers Ferry, W. Va.; Sec.-Treas.: Dr. Jas. K. Guthrie, Martinsburg, W. Va.; Delegates: Dr. W. W. Brown, Shenandoah Junction, W. Va., Dr. Jas K. Guthrie, Martinsburg, W. Va.; Alternates: Dr. G. J. E. Sponseller, Martinsburg, W. Va., Dr. Marvin Porterfield, Martinsburg, W. Va.

Fayette County Society—President: Dr. G. A. Smith, Page, W. Va.; Vice President: Dr. W. E. Bruce, Willis Branch, W. Va.; Vice President: Dr. A. E. Bays, Boomer, W. Va.; Sec.-Treas.: Dr. S. R. Fairchild, Elk Ridge, W. Va. No delegate reported.

Grant-Hampshire-Hardy-Mineral Society—President: Dr. J. H. Wolverton, Piedmont, W. Va.; Sec.-Treas.: Dr. W. W. Babb, Keyser, W. Va. No delegates reported.

Greenbrier Valley Society—President: Dr. J. D. Arbuckle, Lewisburg, W. Va.; Sec.-Treas.: Dr. J. M. De Vebre, Ronceverte, W. Va. No delegate reported.

Hancock County Society—President: Dr. H. M. Powers, Wierton, W. Va.; Vice President: Dr. J. E. Richmond, Hollidays Cove, W. Va.; Sec.-Treas.: Dr. B. F. Harrington, Wierton, W. Va. No delegates reported.

Harrison County Society—President: Dr. C. R. Ogden, Clarksburg, W. Va.; Vice President: Dr. J. E. Corbin, Clarksburg, W. Va.; Secretary: Dr. C. O. Post, Clarksburg, W. Va.; Treasurer: Dr. B. S. Brake, Clarksburg, W. Va.; Delegates: Dr. E. F. Wehner, Dr. I. D. Cole,

Dr. J. F. Williams, Dr. Earl Flowers, Clarksburg, W. Va.

Kanawha County Society—President: Dr. R. D. Roller, Jr., Charleston, W. Va.; Vice President: Dr. J. Lon Carter, Danville, W. Va.; Sec.-Treas.: Dr. W. F. Shirkey, Jr., Charleston, W. Va.; Delegates: Dr. W. B. Wilson, Dr. J. R. Shultz, Dr. W. S. Shepherd, Dr. L. L. Aultz, Dr. A. A. Shawkey, Charleston, W. Va.

Lewis County Society — President: Dr. W. H. Green, Weston, W. Va.; Vice President: Dr. G. M. Burton, Weston, W. Va.; Secretary: Dr. Guy R. Post, Weston, W. Va.; Treasurer: Dr. O. L. Hudkins, Weston, W. Va.; Delegate: Dr. Geo. Snyder, Weston, W. Va.; Alternate: Dr. S. H. Burton, Weston, W. Va.

Little Kanawha & Ohio Valley Society—President: Dr. L. O. Rose, Parkersburg, W. Va.; Vice President: Dr. R. H. Boice, Parkersburg, W. Va.; Sec.-Treas.: Dr. S. M. Prunty, Parkersburg, W. Va.; Delegates: Drs. B. O. Robinson, W. B. Richardson, S. M. Prunty, Parkersburg, W. Va.

Logan County Society—President: Dr. J. H. Thornburg, Crites, W. Va.; Vice President: Dr. W. J. Thomas, Taplin, W. Va.; Sec.-Treas.: Dr. J. E. McDonald, Logan, W. Va.; Delegates: those present at meeting.

Marion County Society—President: Dr. C. L. Holland, Fairmont, W. Va.; Vice President: Dr. S. L. Smith, Monogah, W. Va.; Secretary: Dr. G. H. Traugh, Fairmont, W. Va.; Treasurer: Dr. C. W. Waddell, Fairmont, W. Va.; Delegates: Dr. Wm. F. Bowers, Fairmont, W. Va.; Dr. J. A. Reidy, Monongah, W. Va.; Dr. H. S. Keister, Fairmont, W. Va.; Dr. M. F. Hamilton, Fairmont, W. Va.; Dr. J. J. Jenkins, Farmington, W. Va.; Dr. L. C. Davis, Fairmont, W. Va.

Marshall County Society—President: Dr. P. D. Barlow, McMechen, W. Va.; Vice President: Dr. J. E. Cooper, Cameron, W. Va.; Secretary: Dr. J. A. Striebich, Moundsville, W. Va.; Treasurer: Dr. O. P. Wilson, Moundsville, W. Va.; Delegates: Not reported.

McDowell County Society—President: Dr. H. G. Camper, Welch, W. Va.; Vice President: Dr. H. L. Kirkpatrick, Deegans, W. Va.; Secretary: Dr. F. B. Quincy, Panther, W. Va.; Treasurer: Dr. J, L. Sameth, Welch, W. Va.; Delegates: Dr. A. G. Rutherford, Dr. S. A. Daniels, Welch, W. Va.; Alternates: Dr. W. L. Peck, Dr. E. Vermillion, Welch, W. Va.

Mercer County Society—President: Dr. J. B. Kirk, Bluefield, W. Va.; Vice President: Dr. W. W. Harloe, Matoaka, W. Va.; Secretary: Dr. David Littlejohn, Bluefield, W. Va.; Treasurer: Dr. C. T. St. Clair, Bluefield, W. Va.; Delegates: Dr. W. H. Wallingford, Princeton, W. Va.; Dr. John Bird, Rock, W. Va.; Dr. W. H. St. Clair, Bluefield, W. Va.

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Ohio County Society—President: Dr. Turner Morris, Wheeling, W. Va.; Secretary: Dr. John E. Marschner, Wheeling, W. Va.; Treasurer: Dr. H. W. Bond, Wheeling, W. Va.; Delegates: Dr. Harry Hall, Dr. E. L. Armbrecht, Dr. A. J. Noome, Dr. J. W. Gilmore, Wheeling, W. Va.; Alternates: Dr. J. G. Walden, Dr. C. E. Clovis, Dr. A. L. Jones, Dr. R. J. Snyder, Wheeling, W. Va.

Preston County Society—President: Dr. Frank D. Fortney, Newburg, W. Va.; Vice President: Dr. B. S. Rankin, Tunnelton, W. Va.; Sec.-Treas.: Dr. Lewis H. Howard, Kingwood, W. Va. Delegates not reported.

Raleigh County Society—President: Dr. U. G. Cook, Beckley, W. Va.; Vice President: Dr. D. B. Jarrell, Beckley, W. Va.; Vice President: Dr. E. S. Dupey, Beckley, W. Va.; Sec.-Treas.: Dr. Robt. Wriston, Beckley, W. Va. Delegates not reported.

Ritchie County Society—President: Dr. T. W. Kieth, Harrisville, W. Va.; Sec.-Treas.: Dr. C. W. Rexroad, Harrisville, W. Va.; Delegate: Dr. H. M. Rymer, Harrisville, W. Va.; Alternate: Dr. C. W. Rexroad, Harrisville, W. Va.

Summers County Society—President: Dr. G. E. Gwin, Hinton, W. Va.; Sec.-Treas.: Dr. G. K. Nutting, Hinton, W. Va.; Delegates: Drs. Gwin and Nutting, Hinton, W. Va.

Taylor County Society—President: Dr. Paul P. Warden, Grafton, W. Va.; Vice President: Dr. C. C. Hedges, Grafton, W. Va.; Secretary: Dr. D. C. Peck, Grafton, W. Va.; Treasurer: Dr. F. S. Suddarth, Grafton, W. Va.; Delegate: Dr. C. C. Hedges, Grafton, W. Va.; Alternate: Dr. C. B. Rohr, Grafton, W. Va.

Upshur County Society—President: Dr. Everett F. Walker, Adrian, W. Va.; Vice President: Dr. J. A. Rusmissell, Buckhannon, W. Va.; Sec.-Treas.: Dr. O. B. Beer, Buckhannon, W. Va.; Delegate: Dr. L. W. Page, Buckhannon, W. Va.; Dr. H. O. Van Tromp, French Creek, W. Va.

Webster-Nicholas Society—President: Dr. John E. Hyer, Curtin, W. Va.; Vice President: Dr. Hugh Dunn, Richwood, W. Va.; Sec.-Treas.: Dr. Robert McClung, Richwood, W. Va.; Delegate: Dr. H. H. Veon, Richwood, W. Va.; Alternate: Dr. C. F. Fisher, Richwood, W. Va.

Tyler County—No organization.

THE CANCER PROBLEM

Read Before An Open Meeting of the Ohio County Medical Society, Feb. 15, 1924

By ROBERT A. ASHWORTH, M. D.
Moundsville, W. Va.

As next week is National Cancer Week throughout America, it is fit and proper that we physicians take one evening of our time to discuss this vital question, in order that we may do our usual and accustomed duty in informing the public of the large death rate in our midst and that if it is discovered early and treated immediately it is curable.

When mankind was created there was no disease. Man sinned and disease entered the world. All have sinned and all mankind will be visied by disease or death. The sin of neglect is the only sin of the cancer problem, for it is not contagious, not inherited, and not a "blood disease." We do not know by what form of disease we will

take our demise but we do know one hundred here in Ohio County, twelve hundred in West Virginia, and ninety thousand in the United States die annually of cancer.

Cancer is a potential danger to each of us and to every citizen in our country. I have noted how the citizens of your county are grieved by the death of one of your number by deadly fire arms, or by suicide, how much you talk about it and how much your papers advertise it. I have noticed how little you discuss and advertise the one hundred deaths due to Cancer in your county. We physicians have been too modest to report and your medical society and hospitals have neglected to report the number of lives saved by the removal of cancerous growths with knife, X-ray or radium. Your papers will be as glad to report the life of any one of your citizens saved from cancer as they are ready to report the life of an inmate of the penitentiary saved from the gallows.

The hospitals or a reporter for the society could say that a member of the medical society removed a suspicious growth from patient B. The laboratory reported it to be a cancer. The doctor removed all the cancerous cells before it had time to spread through the patient's system and expects a permanent cure.

We should impress on the laity that a cancer must early be recognized and removed by a competent surgeon, X-ray or radium, for there is no other safe procedure or the cancer will remove the patient in a few months or years by a horrible, loathsome, untimely death, which strikes down its victim in the productive period of life. Our women are afraid of anything that crawls or has claws. We may arouse their interest to early action by telling them that cancer was named from Cancri, meaning crab, by the ancients, because of the greatly dilated veins radiating from it like claws of a crab. Cancer cells will creep with silent tread through the body, claw out its vitality and will drag its victim to an untimely death.

We do not know the cause of cancer. Dr. John Fibiger, Professor of Pathological Anatomy at the University of Copenhagen, has demonstrated that cancer can be produced through the parasite nematode and malignant tumors by external irritations. Dr. Fibiger has just been awarded the Sofie a Nord Hoff-Jung cancer research prize. The British Medical Journal in December, 1922, reports that Hutchinson, Bayet and others attribute industrial cancer to workman coming in contact with soot, tar pitch, parafin and analine derivatives and that cancer has been produced from oil soaked clothes.

It is estimated that the money value of an individual of the United States is $2,900.00. The value of lives lost from cancer in the United States is $261,000,000.00, in West Virginia is $3,480,000.00, and in Ohio County $290,000.00. It is estimated that the annual average earning capacity of an adult life is $500.00. This is the age that cancer claims its victims. The annual earning loss from labor in the United States is $45,000,000, in West Virginia $600,000.00, in Ohio County $50,000. These startling statistics is sufficient reason for our presence here this evening.

Unfortunately early in cancer the danger signal of pain is absent and other symptoms are so trivial that

a physician is not consulted in time to affect a cure. We physicians have learned that there is a pre-cancerous stage. We must teach the laity that a "wart, mole or birth mark which becomes active" and the slightly elevated pearly white or bluish-white patches on the surface of the tongue or mucous membrane of the cheek and "sores, cracks, lacerations, lumps and ulcers that do not heal" result often enough in cancer to justify removal.

We should show how persistent irritation in the stomach or around the gall bladder caused 35,000 deaths annually in America from cancer. The lips irritated by smoking, the mouth by the root of a tooth, the breasts traumatized by corsets, the kidneys tortured by calculi, the function of the bladder disturbed by residual urine, papilomata or stone, the prostate affected by hypertrophy, the glans penis by marked phimosis, and the bloody, itching piles are frequent places for the occurrence of cancer. In other words we should teach that continual irritation practically always precedes cancer.

The female generative organs cause 13,000 deaths annually. Any abnormal vaginal discharge and especially a discharge re-established after it had ceased for a time in women who have reached forty years of age, should be called cancer-drops. All lumps of the breasts at any age which persist for four weeks should be removed. We put the time four weeks because at the Collis P. Huntington Cancer Hospital it was demonstrated experimentally in 1913 that in mice cancer spreads with uniformity in thirty-nine days after inoculation.

The John Hopkins Hospital reported 85% of cures of cancer of the breast operated on before axillary involvment had occurred. If all lumps of the breast were removed early there would practically be no death rate from cancer of the breast and 8,500 good women of the U. S. A. could be saved annually. Hence "every woman should regard a lump in the breast with dreaded suspicion as soon as she notices it," and not two months afterwards.

Our mortuary statistics show that cancer is increasing from 16 to 25% each decade while the death rate from tuberculosis has decreased fifty percent, and such common diseases as typhoid, diphtheria, when we use the Shick test and toxin anti-toxin. Malaria and smallpox have been nearly eradicated by the physicians practicing preventive medicine and educating the public. So let each of us educate the public and reduce the death rate from cancer fifty percent. This increase in the death rate may be partly due to accurate diagnosis and improved registration, but it is certainly due in a great measure to the span of life of the cancer age being increased ten years by "scientific medicine."

I am an optimist on the final outlook of the cancer question, because it is first a local disease which can be completely exterminated and because the patients that cancer attacks have reached the age that they will inform themselves as to the early symptoms of cancer and the danger of pre-cancerous stage.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

J. E. RADER, M. D.
W. E. VEST } - Assistant Editors

THE JOURNAL issued on the first of each month. Entered as second class matter, January 1, 1916. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

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Single Copies - - - - - - - - 35 cents

All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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DELEGATE TO A. M. A. 1923-1924: Dr. Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

COUNCIL

FIRST DISTRICT: Charles C. Morgan, Moundsville, two-year term; H. P. Linz, Wheeling, one-year term.

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SIXTH DISTRICT: C. A. Ray, Charleston, two-year term; B. B. Wheeler, Beckley, one-year term.

DOCTOR PETER ALLEN HALEY

The subject of this sketch was born in Louisa County, Virginia, September 20, 1874. His parents were the Rev. L. J. Haley and his wife, Mary Long. He attended the public schools of the county, the Oakland Male Academy and later William & Mary College. Afterwards he studied medicine and graduated from the University College of Medicine, now Medical College of Virginia, in the year 1899, after which he came to West Virginia and did general practice for a time at Hinton and elsewhere. He took a special course of a year or more in eye, ear, nose and throat work at the Manhattan Eye and Ear Infirmary, New York, and afterward limited his practice to that specialty. Shortly after this he located in Charleston where he resided until his death, following an attack of pneumonia, February 28, 1924.

In connection with his office, he established a small, but very thoroughly equipped hospital for his special line of work. He was sys-

tematic, and did a very large volume of work in a quiet and unostentatious manner.

Rather early in his professional career Doctor Haley married Miss Louise Mahon of Caroline County, Virginia. There were born to this union two sons, Peter A., Jr., and John B., who are preparing to study medicine.

Doctor Haley took an active interest in athletics, was a director of the Boy Scouts organization, and a frequent visitor to the various athletic contests at Laidley Field. He was what is usually known as a "joiner" and took a considerable interest in the various organizations to which he belonged.

Doctor Haley was a hard worker, and devoted most of his entire time to professional work, taking but little recreation of any sort. However, he was an enthusiastic sportsman and greatly enjoyed following the hounds, bird hunting, etc. Each year he would take a trip to Cheriton on the eastern shore of Virginia, where he and his brothers would indulge in a large duck hunt.

He took a most praiseworthy interest in medical society work and was active in the local and state medical associations. He was a member of the American Medical Association, Southern Medical Association, also a Fellow of the American College of Surgeons. He served one term as president of the local medical society and was councillor for more than twelve years in the state medical association.

As a man he had many qualities to be admired. Kindly, considerate and thoughtful, charitable in his views of others and liberal in his attitude toward the public and the profession. He probably had fewer enemies and was better liked than any physician in the city.

What he was as a physician, he was primarily as a man. He was always greatly interested in anything that could be applied to the benefit of humanity. Full of common sense, he was able to cut through irrelevant details and to reach the real facts. He constantly radiated helpfulness, sympathy, good will and understanding.

He gave the same tender, considerate care to the poor, unfortunate patient that he did to the rich. He did not practice the arts of the orator. He did not play to the gallery, but he commanded the full and hearty respect of the public and his medical brethren as well. His mental attitude was not that of a closed chamber but, being blessed with an open mind he was always ready and willing to accept new ideas when they were of proven value.—John E. Cannady.

THE AIMS OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

The chief aim of the American Society for the Control of Cancer is the diffusion of knowledge among the laity regarding the early symptoms of cancer and the bringing of the members of our own profession to a better realization of their responsibility.

I beleive that if any physician in our state society were asked to sum up in a single word everything that relates to our present day knowledge of cancer prevention, that one word would be "Education."

Every year there are 500,000 deaths in this country from preventable causes. One-fifth of this number or 100,000 of these deaths

are due to cancer, which virtually means an army conquered by somebody's negligence.

The American Society for the Control of Cancer has for its aim, as has our State Medical Society, the wiping out of this factor of delay. We physicians know that with all our preachment and all our effort at education that at the present time the average person seeks advice one year or more after the first symptom has been discovered. Our aim is to reduce this time to one day if possible. And when we shall have accomplished this, our battle against this unconquered scourge will have been won—just as it was won in yellow fever, typhoid, diphtheria, and is all but won in tuberculosis. (There has been a decline of 38% in the tuberculosis death rate.) We want the undivided support of every intelligent person in this state. We need your help, your sympathy, your support. You should pledge and obligate yourself in this great altruistic effort to help cut in twain this frightful mortality which robs West Virginia of 1200 priceless lives every year.

Remember, the complete removal of a cancer is an absolute cure; that the complete destruction of a precancerous sore wipes out a potential malignancy. Every patient who comes to his physician before the growth has leaped or extended to inaccessible regions can be cured. Be educated and stay educated on this cancer question.—Frank Le Moyne Hupp.

THE PROGRAM

For eighteen years we have looked forward to the program of the annual meeting with the greatest anticipation. Each year they have been better than the one before. It has been a great source of pride that this is so, for it shows that our men keep up with the advances of modern medicine.

The program arranged for this year's annual meeting most certainly continues this progress. When you read it over I am sure that you will agree that the committee on the scientific program has performed its duties to a remarkable degree.

You will note that by far the greater number of the addresses are by our own members. In the past this has not always been true. Yet it should be. The members of our State association are capable men and in our own State some of the very best of professional work is being accomplished in a quiet and unostentatious manner. Sometimes it would seem that we do not appreciate just how capable our next door professional neighbor is. The meeting this year, to judge by the program prepared, bids fair to be a revelation to us in this respect.

It might be well to add at this point a word in regard to our organization. Many, many times visitors of prominence from the larger medical centers have expressed surprise after coming to our annual meetings. The thing which calls for more comment than anything else, after their appreciation of the ability of West Virginia physicians, is usually expressed by, "How do you get such a spirit of friendliness and comradeship at your annual meetings?" Have you ever stopped to think that over? Is there a more vaulable thing for us to have? No and yes. No because without it we cannot accomplish the greatest

good. Yes because we fail to develop this into a determination to co-operate and face the fact that we are not doing those things for which we have great opportunities. We know each other's first names and so address most of the members at the annual sessions. Yet we put it all up in the closet with our winter garments and do not get the spirit of co-operation out again until a day or so before the next annual gathering; we brush the dust off of our determination and vow to "do" something this time sure. Then we do not when we get there.

This year the opportunity will be presented for us to really do something. The time has come when we must get together and work with might and main to build our organization into a strong, compact, actively working one. To some of the members it seems that this can only be done by the having of a full-time executive officer who shall keep us in touch each day with one another and the serious problems we have before us for solution.

Come to Wheeling prepared to accomplish some really constructive work, even if you never have before and do not expect to ever again do so.

PHYSICIANS IN POLITICS

In recent years it has become more clearly recognized by our profession that it is necessary for the medical men to take a more active part in the political affairs of our government.

That this is necessary cannot be denied. Constantly we find questions of the gravest import to the welfare of the citizens of the country presenting themselves — questions having to do with the health of the inhabitants; questions of health insurance, of compensation laws, of the qualifications of those licensed to practice the healing art upon their fellowmen. In all matters of such a nature the physicians are the ones in the best position to judge of the fitness or unfitness of proposed legislation, changing of the existing statutes, et cetera.

In the past our profession has been slow to realize that here we have a great civic duty to perform. It is probable that this has been largely due to a feeling of timidity that our actions might be misunderstood and that individually the physicians in politics were only endeavoring to advertise themselves, so to speak. Naturally this is repugnant to the sensibilities of our profession.

There has always been a small number, however, who have been interested in things political. To the physicians who have been members of our state legislature, both in the House and Senate, our profession owes an undying gratitude for their earnest efforts toward guarding the rights of the people's health so earnestly.

Our profession has only had one Governor of West Virginia so far, Dr. Henry D. Hatfield, now of Huntington. We have just cause to feel proud of our only representative. It makes no difference whether we agree politically or whether we agree with all of the things the legislature did during his term of office, we must all admit that he worked earnestly and well for the accomplishment of all reforms in our medical practice law and to make our health department of greater value to the state. Probably the value of accomplishments made along these lines during the

term of his Governorship have not yet been fully appreciated.

It is of great interest to us to know that two of our members are aspiring to the two highest offices in the gift of the citizens of West Virginia. Dr. Geo. A. MacQueen, of Charleston, announces himself as a candidate for the governorship upon the Democratic ticket, while Dr. M. V. Godby, also of Charleston, aspires to the Republican nomination for United States Senator. Both have placed themselves before the voters as candidates for these nominations at the coming primaries.

These members of the State association need no introduction to the profession. They have proven themselves to be earnest in their loyalty to the best tenets of the ideals of physicians; they have been earnest too in endeavoring to advance the health laws of our State so that all of the people might profit in that most valued of all of our human possessions — good health.

There are other physicians as candidates for other offices. We do not know their names or to what offices they aspire. But it is to be hoped that at the coming primaries the members of the medical profession will be very careful in the lending of their support to the various candidates. This relates, too, not only to the members of the profession who are before the people as candidates for office, but as well to the aspirants from among the laymen. Great care must be exercised in the support lent to them. Their attitude toward vital questions of the people's health and health laws should be very painstakingly found out and our assistance be guided accordingly.

We have great civil duties to perform whether or not we are candidates for office. This year it is particularly necessary for us to take a far greater interest in matters political in West Virginia than ever before. The next legislature will have before it questions of the greatest importance to decide. Our support must be given to men and women who are safe, sane and sensible regardless of their, or our, personal politics.

COUNTY SOCIETY REPORTS

March 13th, 1924.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of March 13th, 1924, with the President, Dr. T. W. Moore, presiding.

The minutes of the previous meeting were approved as read.

A special committee appointed for the purpose reported favorably for affiliation of the physicians with the Huntington Business Men's Association.

The Committee of Public Policy and Legislation reported that they had prepared two very nice articles on Vaccination for the local newspapers but so far these had failed to appear in print, although they had been promised cooperation by the papers.

Dr. R. J. Wilkinson read a very interesting and instructive paper on "Head Injuries," which was provocative of an interesting discussion. Those taking part were Drs. Cronin, Fitch, Guthrie and Hunter, Dr. Wilkinson closing the discussion.

Dr. James Bloss presented the following resolution pertaining to

the new hospital project which was unanimously carried by the society:

Whereas, the need for a large general hospital in Huntington is well recognized, as it offers the physicians of the city adequate facilities with which to work and makes ample provision for charity; and

Whereas, the General Hospital Board of the Southern Methodist Church contemplates the erection and management of such a hospital in each Southern state; and

Whereas, several of the cities in this state are making overtures for the location of the proposed hospital in their respective cities; therefore

Be it resolved: First, that the Cabell County Medical Society consisting of 86 members heartily endorse the idea of locating such a hospital in Huntington and pledge their support, both financial and otherwise, to the undertaking and urge upon the citizens of this great city to give to this movement hearty support.

Second, that a committee consisting of ten members be appointed by the president to represent this society with committees from other bodies to the end that Huntington may be selected as the location for the West Virginia Hospital; and

Third, that a copy of these resolutions be forwarded to the West Virginia Conference Board, to the General Hospital Board and a copy be furnished each of the local papers for publication.

The President then appointed the following committee to present this matter to the public: Drs. Wilkinson, Biern, Steenbergen, Gerlach and Hicks, Matthews, Marple, Taylor and A. K. Kessler. By vote of the society Dr. T. W. Moore was elected active chairman of this committee.

Dr. W. E. Vest presented the following resolution, which was unanimously carried by the society:

Whereas: There are numerous cases of death and permanent invalidism from the use of lye and other caustic or corrosive substances meaning the acids, caustic alkalis, etc., therefore,

Be it resolved: That it is the sense of the medical profession that a law be passed requiring that all such substances sold within the state be plainly and distinctly labeled "Poison;" and futher,

Be it resolved: That the editor of the "State Journal" be requested to publish this resolution and also the following points for the attention of physicians, believing that without attention to these points, it is almost hopeless to expect legislation:

(a) Legislators are very reasonable people, but very few of them are physicians. They do not see these sad cases. We do. It is necessary therefore for us to present to them the clinical evidence of the necessity for this legislation.

(b) It is necessary to convince the legislators that the opinion of the profession is unanimous.

(c) Evidence as to the necessity of any piece of legislation is usually presented to a committee of the House or Senate to whom the bill has been referred. It is necessary to be prepared with clinical facts in form for presentation to laymen.

(d) In addition to the presentation of the evidence to the committee it is necessary to present, in writing or personally to each member of the legislature, the reason for advocating such legislation.

(e) The cost to the State of children hospitalized by reason of lye poisoning.

(f) The purely humanitarian motives of the medical profession in this movement are so obvious to us all that it may occur to us to mention our motives. But it must be remembered that so many bills are presented by purely selfish interests that it is one of the most important duties of legislators to scan every bill closely for concealed ulterior motives. It should be made clear that our interest in the lye matter is purely one of public welfare, especially the welfare of children; and that no prossible material benefit, ultimate or remote, can accrue to the medical profession by such legislation.

Dr. E. B. Gerlach, the local health officer, explained the local smallpox situation and said that part of the Board of Education were favorable.

There being no further business the meeting was adjourned.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of March 27th, 1924, the president, Dr. T. W. Moore, presiding.

The minutes of the previous meetings were approved as read, there being no corrections, alterations or amendments.

Dr. R. J. Wilkinson reported for the committee on the new hospital project and outlined the plans they hoped to institute. On motion the committee was continued.

Dr. George M. Lyon read a very instructive paper on "Milk Anemia of Infancy," calling attention to prolonged breast feedings, unbalanced diets and poor hygienic surroundings as contributing to the condition. The paper was discussed by a number of the physicians present, Dr. Lyon closing the discussion.

Dr. L. T. Vinson moved that the President appoint a committee consisting of two Democrats and two Republicans to interview the candidates to the State Legislature to ascertain their standing toward medical legislation. Motion seconded by Dr. Sweezy and carried. The President deferred appointing a committee to a later date.

The President appointed the following committee to draft resolutions on the death of Dr. C. C. Hogg: Drs. Vinson, Wilkinson and Biern.

The Secretary read a letter from Dr. Goff at Corpus Christi, Texas, where he is residing temporarily due to illness in which he asked exemption from paying dues until he had resumed his practice. His request was granted.

The Secretary took the chair while the President introduced the following appended resolution which was adopted.

Dr. F. O. Marple as chairman of a special committee presented an agreement entered into with certain physicians and the Huntington Business Men's Association regarding delinquent debtors. The Society took no action.

The bills as presented were ordered paid.

There being no further business the meeting adjourned.

OSCAR B. BIERN, M. D.
Secretary.

MEETING OF McDOWELL COUNTY MEDICAL SOCIETY

January 9, 1924.

The McDowell County Medical Society met for its regular session on January 9, 1924, in the offices of Welch Hospital No. 1. Those present were: Dr. Camper, Dr. Kirkpatrick, Dr. Stevens, Dr. Thomas, Dr. Livingston, Dr. Rutherford, Dr. Anderson, Dr. Lovely, Dr. Vermillion, Dr. Quincy.

The meeting was called to order by the President, Dr. Harry G. Camper.

The minutes of the last meeting were read by the Secretary, and there being no objections or corrections, they were approved as read.

Clinical cases—Case of Dr. Kirkpatrick, Deegans, W. Va. Dr. Kirkpatrick reported a case of uterine inertia in a young married woman. This was a face presentation at full term. One of the pecularities of this case was the behavior of pains —active when patient was up and about, ceasing on resumption of the recumbent posture. The second abnormality was the response—or rather lack of it—of the uterus to Pituitrin. After resorting to the usual means, such as walking, which seemed to induce pains for a transitory period only, the cervix being well dilated, Pituitrin was administered in 7 minim doses for two doses at 30 minute intervals. After waiting three hours, during which time labor was practically at a "standstill," Pituitrin was again administered in ½ cc. doses every thirty minutes until she had received four doses, at which time labor pains assumed the expulsive type, and a dead child was delivered. Dr. Kirkpatrick stated that the point he wished to make in reporting this case was that, while generally accepted as a drug capable of producing rapid and forceful pains, Pituitrin, at times (as in this case), would appear to be without therapeutic value except in rather large and repeated doses.

Discussion—Drs. Anderson and Woolwine both counselled the use of small doses of this powerful drug, and then only selected cases. Especially should we know well about the bony pelvis in each case. The cervix should be dilated, or dilatable, and one must never lose sight of the danger of uterine rupture.

Dr. Anderson pointed out its usefulness in certain cases. He admonished us to be sure of the presentation and prefers version, where it can be accomplished with advantage.

We feel safe in saying that the consensus of opinion, all things being equal, was in favor of forceps.

Case of Dr. J. Howard Anderson, Marytown, W. Va.—This is a most interesting one from the standpoint of diagnosis. M. K., married woman, 28 years, three children. Clinical history: Pain in left inguinal region, of the come-and-go type; cutting in character; soreness marked. Palpation revealed a mass about the size of an American walnut. As this patient had had a gonorrheal infection, lucorrheal discharge, and there was no bleeding or signs of either objective or subjective of pregnancy, a tentative diagnosis of an acute exacerbation of a chronic gonorrheal salpingitis was made and operation advised. Pre-operative diagnosis: Ovarian cyst (Dr. Livingston). Operative findings: Drs. Rutherford and Liv-

ingston. Ruptured extra-uterine pregnancy of about four to six weeks. These findings were confirmed by Dr. Bloodgood.

Discussion—Dr. Stevens: Calling special attention to the history in these cases. Drs. Rutherford, Camper, Woolwine and Anderson: Pointed to the behavior of the menstrual flow. There was a certain amount of bleeding, though small, after the period was apparently completed. Dr. Camper, quoting from Dr. Stuart McGuire's one hundred cases, mentioned the frequency of this condition in tubal disease. Oftentimes, after a unilateral salpingectomy, an extra-uterine pregnancy will develop on the other side. This is explained on the ground that there is a thickening and narrowing of the tube lumen, making the transit of the ovum to uterus impossible.

Dr. Rutherford: Tetanus—Dr. Rutherford called our attention to presence of tetanus, and in detail outlined the prophylactic line of treatment he had had instituted at the hospital.

Dr. Matney reported a case which had received prophylactic treatment at the hospital, and to date had exhibited no symptom of the disease.

Dr. Camper, in discussing tetanus, stated that the prophylactic treatment was receiving the proper recognition in the teaching of the treatment of punctured and gunshot wounds. Majority of the candidates for medical recognition give it space in their answer to the question "Give the Treatment of Gunshot and Punctured Wounds."

Dr. Quincy reported three cases of scarlet fever in children, one suffering from Scarletinal Nephritis. The treatment of Scarlet Fever in general was discussed, especially post-scarletinal nephritis, which was ably handled by Dr. Camper, who advised rest in bed, salt-free diet, minimum protein, moderate amount of fluid in-take, warm baths; under suitable circumstances hot wet packs or hot dry packs, hot fomentations. In plethoric cases he advised phlebotomy followed by saline solution intravenously. He advised us not to be too zealous in our restriction of the fluid intake, which was often the direct cause of super-added acidosis, brought about by too great concentration of the body fluids.

Dr. Stevens wished to know why we gave a salt solution when we were on a salt-free diet.

Dr. Camper explained it on the ground that we could account for and administer a known quantity by so doing.

Dr. Anderson added to Dr. Camper's remarks by calling our attention to a physiological fact—a solution to be absorbed by the tissues must approach, as near as possible, the composition of the blood plasma, and this is exactly what normal saline does. Aside from its replacing fluid bulk lost either by phlebotomy, sweating, or drastic catharsis, it was a great neutralizer of the poisons circulating in the body fluids.

Dr. Camper advised late afternoon specimens as more valuable in determining the kidney function.

Dr. Livingston was of the opinion that the morning specimen was a better index to the kidney output.

Dr. Camper, closing, advised the following treatment: In uremia, full bounding pulse, phlebotomy followed by saline by any route, Comp.

Jalap Powder, lavage to be followed by salts, sweating either by means of hot wet or dry packs. For the anemia, solution of acetate of iron, rest in bed for six weeks, using woolen bed clothing, functional kidney tests frequently for six months, he being more impressed with its reliability than that of blood urea.

Dr. Anderson further added that it is of greatest importance to bathe our scarlet fever patients, pointing out that the skin, in this particular disease is most inactive. Quoting Dr. J. C. Wilson, he advised the use of chloral hydrate to control the nervous tension of the kidneys.

Dr. Rutherford spoke briefly of the many complications which made scarlet fever the disease that it is. He mentioned in particular the septic states so often present, as well as the much dreaded conditions of the heart and ears, to say nothing of nephritis.

There being no unfinished business to claim the attention of the Society, the matter of new business in the form of petitions for membership, presented themselves for consideration.

The petition of Dr. Lloyd Edgar Cox, properly executed and accompanied by the required fee, he having been duly recommended by Drs. Matny and Quincy and having complied with the law as to licensure and registration of the same, was presented for consideration of the Society. On motion of Dr. J. Howard Anderson, being duly seconded, that portion of our By-Laws which requires that a petition lay over for one month was temporarly suspended and Dr. Cox was unanimously elected to membership in the Society, and he has been properly advised of our action.

In the matter of the petitions of Dr. W. K. Mackey and Dr. Evans, both of Iager, the records showing that each separately holds membership in a sister society, it was ordered that their petitions be received and held, pending a procurement of a transfer of membership, after which the Society will proceed as is the usual order in such cases.

There being no further business, on motion, duly seconded, the meeting was adjourned.

FRED B. QUINCY. Secy.

MEETING OF THE McDOWELL COUNTY MEDICAL SOCIETY

February 13, 1924.

The regular monthly meeting of the McDowell County Medical Society was held at the Welch Hospital on February 13, 1924, at 8 o'clock P. M. Present: Drs. Camper, Stephens, Rutherford, Anderson, Lovely, Thomas, Hughes, Livingston, Kirkpatrick, Quincy.

The meeting was called to order by the President, H. G. Camper.

The minutes of the last meeting were read and approved without correction.

Clinical Cases

Case of Dr. A. G. Rutherford—Referred case, male, 1 year old. History of Inguinal Hernia, inducible in character. Clinical history: Was taken sick three days before he was brought to the hospital; vomiting, and an inducible hernia of the right side which could not be reduced by taxis, etc. This case was three days old when it went to operation. Post-operative findings: Scrotum full of intestine; Caecum protruded and revealed a discoloration about the size of a

fifty-cent piece. After a waiting period of fifteen minutes, the Caecum assumed a normal color and the wound closed without drainage. This patient was exihibited, and showed every sign of making what would shortly be recorded as an uneventful recovery.

Case of Intussusception—Female, 2 years of age. History of obstruction: No bowel action for three or four days, passing blood and mucous; pulse 160; toxic condition, hippocritic facies; palpation revealed a tumor of the right inguinal region. Clinical impression: Intussusception. Post-operative findings: Intussusception involving Meckel's Diverticulum. Gut was reduced in the usual manner and wound closed without drainage. Oschner's method was used in reducing the gut.

This case was especially interesting from the anatomical parts involved, also from the fact that, although several days had elapsed and there was a markedly toxic condition of the child, recovery is almost assured.

Discussion

Dr. Quincy mentioned as his belief that no effort should be made outside of the hospital to treat these cases; that they were operative cases from their inception.

Dr. Stephens differed with Dr. Quincy, believing that some cases could be reduced by high enema, Trendelenberg position, etc., citing cases he had successfully treated.

Paper, "Puerperal Sepsis," Dr. Jacob Livingston.

The late Dr. L. Emmet Holt once said that "Reading maketh a full man, writing an exact one, and speaking a ready one."

Dr. Livingston proved to us, in presenting his paper, an endowment of all three of these virtues.

It was the presentation of a subject by a surgical practitioner, not an academic disclosure, from which we could only say that the speaker was well posted in theory and statistics. Those who followed him closely could go, step by step, from the realm of theory and experimental research to the rock bottom of application.

His resume of the literature was most interesting and enlightening. To our attention he brought these astounding figures, that in the aseptic United States there were 7,000 deaths due to child-bed fever—something to think about, especially for those of us who do our own obstetrics. Still more did he impress upon us the importance of non-operative interference; reduced to ordinary parlance, "Watch and wait—don't do anything just to be doing something."

The importance of prophylaxis was stressed particularly with reference to repeated vaginal examination, the use of gloves, antiseptics and gloves, and the general pre-partum care of our parturient.

I keenly regret that it is not within my province to write more with reference to this paper, so ably and intelligently presented, but the ready discussion which followed over-shadows my ability, and I keenly regret that space forbids my making it a part of this record, but for the information of those who may follow me as scribes, I want to make it a matter of record that Livingston's "Puerperal Sepsis" is a part of the literature of this society of which we may well be proud.

Discussion

Dr. Rutherford cited two cases, one in which operative interference was of no avail. Another which received supportive treatment, ice caps to abdomen, no interference except for the control of hemorrhage.

Dr. Anderson—Be careful about your perineum. At the first sign of infection, remove sutures. No irrigations. Murphy drip. Purge, using salts. Prophylaxis essential. Empty vagina thoroughly of blood clots to prevent a good culture media. Lysol douche if there is any odor. Rest, and nourishing diet. For general elimination, calomel and soda bicarbonate. As a uterine and general tonic, F. E. Ergot-Tr. Nux Vomica, Tr. Rhei and Comp. Tr. Gentian. The Ergot assists involution and prevents infection entrance.

Dr. Stephens and Dr. Lovely agreed with Dr. Anderson on his treatment of these cases.

Dr. Camper: Prophylaxis, boiled rubber gloves, scrub exposed parts with alcohol and ether. Treatment: For interference within the uterus, remove sutures. As a precautionary measure, be sure you eliminate the dead spaces when repairing a lacerated perineum. Give bichloride bath of the parts, but stay out of the vagina. In Phlegmasia albo dolens, elevation, heat, no massage.

Dr. Livingston, in closing, insisted on the use of rubber gloves in all cases. If necessary to remove any foreign body from the uterus u- a dull curette.

Miscellaneous Business

Bill of Osborn & Johnston, $10, services rendered in chiropractor litigation, ordered paid.

Bill of Home Office Supply Company, $9.00, for printing, ordered paid.

On motion of Dr. J. Howard Anderson, duly seconded, Dr. H. G. Camper was authorized and empowered to employ additional counsel to prosecute chiropractors practicing without first complying with the "Medical Practice Act."

By unanimous consent Dr. A. G. Rutherford was elected to act as essayist at the next meeting of the West Virginia State Medical Society, representing this society as such.

In the matter of the application of following practitioners petitioning for membership in this Society, they being well known and with characters above reproach, being duly recommended and having complied with the rules and regulations of both society and state, on motion, duly seconded, it was the pleasure of the society to set aside temporarily the rules and elect to membership Dr. Lawton, Welch, Dr. Davis, Welch, and Dr. H. L. Horton, Davy.

There being nothing further to claim our attention, the meeting adjourned at 10 o'clock P. M.

FRED B. QUINCY, Secy.

MEETING OF THE McDOWELL COUNTY MEDICAL SOCIETY

March 12, 1924.

The regular monthly meeting of the McDowell County Medical Society was held in the offices of Welch Hospital No. 1, on Wednesday evening, March 12, at 8 o'clock. Present: Doctors Camper, Rutherford, Evans, Sameth, Livingston, Cox, Vermillion, Lovely, Kriner, Quincy.

The meeting was called to order by the President.

The minutes of the last meeting were read and approved without correction.

Clinical Cases

Case of Dr. Rutherford—This case was very interesting from a diagnostic standpoint, and was reported by the Doctor for that reason.

The patient entered the hospital about May 1, 1916, with all the characteristic symptoms of an acute appendicitis. Operation: Removal of the appendix, with exploration of the pelvis, which the clinical record of the case shows was normal. After the operation the patient remained in the hospital eight or ten days, and then returned to her home, apparently in normal health.

On June 29, 1916, she again returned to the hospital, and examination revealed a retro-flexed uterus. Operation: Mid-line incision with a Coffee suspension, from which, after the usual stay in the hospital, she was discharged.

On February 18th of this year she again entered the hospital for treatment, giving the following symptoms: Vaginal bleeding for six weeks, leucorrhoea, cystitis and lumbar pain. Examination of the abdomen revealed no rigidity, but tenderness on both left and right quadrants.

Operation: A "D. & C." was done and a small amount of solid matter removed from the interior of the uterus. Patient remained in the hospital for six or eight days, but still complained of pain in lower part of the abdomen. In view of the other operative procedures, further interference was not advised, and the patient returned home.

On March 9th of this year, this patient entered the hospital a fourth time for treatment. Pain in the right scapular region, no vomiting, pain in right and left quadrants, no tenderness to speak of. Exploratory incision advised. Operation: Mid-line incision. Post-operative findings: Five bands of adhesions were found on the left side, which were divided. Uterus normal. Right ovary in good condition; left ovary cystic and partially removed. Mid-line incision closed and an upper right rectus incision was made, that the gall bladder region might be explored. Examination revealed a distended gall bladder, from were removed six moderate sized stones.

The point the doctor wished to make was this: That in all probability the gall bladder condition was responsible for the majority of her symptoms, except, of course, that of the uterus. Also that it is always a very wise procedure to eliminate a pathologic gall bladder when we have to deal with an appendiceal condition.

Dr. Lovely suggested that the element of referred pain had much to do with masking a real condition.

Dr. Stevens was of the opinion that not a few cases come to operation for appendicitis which in reality were ones for gall-stones.

Dr. Camper advised examination of the gall-bladder region first, and then that of the appendiceal and pelvic last, if you make one incision.

Dr. Rutherford in closing advised a separate rectus incision for gall bladder exploration, and concurred with Dr. Camper in the advisability (if a mid-line incision is made) of

examining the gall bladder region first, in view of the fact of greater probability of carrying infection from the pelvic cavity to the gall-bladder region than vice versa.

Papers

Syphilis in Its Clinical Aspects

Dr. A. G. Rutherford—This subject was handled in a most masterly manner and brought out many clinical points worthy of the serious consideration of the general man in the field. It was a warning to us who are often prone to take too much for granted and leave the matter up to the court of last resort, the surgeon. While he dwelt on the treatment as being general-medical, there was vast surgical relationship as well. He impressed upon us the necessity of always having in mind the possibility of leuetic infection, no matter what the station in life of our patient. Especially did he dwell on the specific conditions involving the stomach, where the diagnosis of ulcer or possibly malignant disease might be made erroneously. Those inflammatory conditions of the testicle frequently diagnosticated tubercular were oftentimes leuetic, and it fell to the lot of the surgeon to make the final analysis.

In fact, it was an excellently prepared paper, reflecting the result of painstaking review coupled with that of a careful analysis of cases based on large clinical experience.

Summed up in a few words, we feel safe in saying that Dr. Rutherford's rule and guide is the following: "Be sure you are right, then operate—but you are never right until you have excluded syphilis."

This paper will be presented by the Doctor at the next meeting of the West Virginia State Medical Society. I do not hesitate to vouch for its reception, and anticipate the honor it will reflect on our county society.

Discussion

Dr. Stevens congratulated Dr. Rutherford on the excellence of his paper. He stated that although it had its place in surgery, it still was a medical condition. He gave us a few words on the treatment of slow-healing fractures as carried out in one of the larger London hospitals, which was K. I. showing the tendency to class those conditions as an immediate or remote result of lues.

Dr. Camper stressed the importance of provocative Wasserman reactions in suspicious cases, which at first hand gave a negative reaction. He quoted several cases in his practice which had responded to specific treatment, where the case was one of suspicion rather than certainty.

Dr. Rutherford in closing thanked the members present for their interest in and discussion of his paper.

New Business

Dr. Evans, of Iager, presented a letter of transfer of membership from the Fayette County Medical Society, and there being no objection, he was unanimously elected to membership in this society.

There being no further business, the society, on motion duly seconded, adjourned at 9:45 p. m. until its next meeting.

FRED B. QUINCY, Secy.

OHIO COUNTY NOTES

HARRY M. HALL, Reporter

In our last letter no mention was made of "Cancer Week." This was an oversight on the reporter's part. On February 25th, an open public meeting was held. Paid advertisements were inserted in the papers and good men were there to speak. Dr. Hupp gave up his time as usual, yet the hall was certainly not overcrowded. Be that as it may, the Ohio County Society did its duty. That the public will not always heed is wholly the public's responsibility. I fancy it is the way elsewhere. All you can say is "Forgive them, they know not what they do." They cannot understand that a body of men will deliberately do something to prevent their own business or professional activity. However, the clinical side was different, quite a goodly number coming up for examination. Strange as it may seem, quite a fair percentage came from Ohio. The movement was kept active and alive. Much direct good in diagnosis was accomplished. Of course the same old cries came up, "We are tired of hearing of cancer," "Nothing but the doctors working up a scare," and "They can't cure it anyway," and others. Our irregular friends help this side, but they might as well come to it and listen; doctors are determined they shall. When doctors determine solidly on anything, it has as good as happened.

On Friday, March 28th, 1924, the Ohio County Medical Society held its regular meeting in the Y. M. C. A. auditorium, and Dr. Arthur S. Jones of Huntington, W. Va., spoke on the "Treatment of Peripheral Nerve Injuries."

We awaited this with a good deal of interest because one of this reporter's pet notions is and has been that West Virginians should mingle more with West Virginians. We are geographically situated so we have borderline cities and here in Wheeling if we can import someone from across the boundary in any direction we are happy. Far be it from the reporter to "look a gift horse in the mouth," and a learned, experienced man who travels three to five hundred (or twenty or fifty) miles to address a body of men puts them doubly in obligation. But it can also be done from within as well as from without. This Society doubly appreciated Dr. Jones' visit. However, this department flies the dubious banner of candor. Some misunderstaning on the part of some, and just exactly five major movements elsewhere in the city did not give us a 100% crowd. This has happened several times before when men who had traveled a long way came to us. But our candor comes in on a few direct remarks to the doctor, which are reflections from others as well as ourselves.

We all believe in Dr. Jones. His agreeable personality left a lasting impression. We are all immensely proud of his achievements. We also believe all good men are modest. Whether that was it or whether it was a strange crowd the doctor would not speak out. A man like Dr. Jones, who has accomplished what he has wants to "hand it out like he builds hospitals." He wants to hear Rimer of Pittsburgh. Of course we can't have everything and no one expects a doctor to be an orator as well as a good orthopedist, but you can attain. We remember when Dr. Fulton could

not make a speech, but now we do not know of a more engaging speaker. So here's to Jones and what he has but we do insist he get a loud speaker.

Dr. Jones made a good talk on a very important topic. He must remember that what an orthopedic surgeon says and does are still rather over the heads of most of us. Nerve splicing has one of the highest altitudes on the list. In fact it is in the clouds, so if he can't always have a fierce and fiery discussion he must recall that very few of us have aeroplanes in our garages.

On Friday, April 4th, 1924, the Ohio County Medical Society held its regular meeting in the Y. M. C. A. auditorium, Dr. James D. Heard of Pittsburgh being the speaker of the evening, his subject being "Recognition and Clinical Significance of Disturbances of the Heart Beat."

Dr. Heard is a quiet conversational speaker, talking off hand and illustrating on the board. We still have a weakness for blackboard illustrators. Perhaps because we like to do it ourselves. Somebody remarked it was out of date, lantern slides having taken its place. We have seen celebrated scientists, with lantern accompaniment, in full dress, use their pointers with what they thought was good results on number 666 when it was number 999 upside down. This cannot happen with a blackboard. True awful diagrams are often made, but the artist with a few erasures usually manages to make a fairly good uterus and tubes before he quits. Dr. Heard following Revealations divided heart disease into the usual "Seven." He is particularly concerned with irregular hearts which throw out alternating columns of blood. This he detects with the blood pressure apparatus and electro-cardigraph—if present he does not give the patient over two years. It was a good practical recital, drew a good discussion and created a general feeling of having been one of the helpful kind of addresses.

For quite a while since reflecting on "Cancer Week" and before it, we have busied ourselves trying to look up some prophylactic move that "The Irregulars" have been the originators of. We are inclined to offer a prize for any information. This does not apply to any "Free Consultation at the Office," so tastefully festooned in the advertisements just over the bright shining visages of the healers as they appear in the papers. In Wheeling we breathlessly pick up our morning paper and after looking at the "death notices" and Jiggs and Andy Gump, and before gazing at what Congress is not doing, we slide our grim gaze at the photographs of the Healers to see if they are telling the public in their little artful way how to release an unhinged nerve in the very start off of a cancer so it won't have to be vigorously assaulted. Or better still, tell families how their members can give each other some kind of a Swedish or Japanese movements in order to keep the recalcitrant vertebrae from stacking themselves up like crooked building blocks, and stepping on those poor little celebrated nerves like squashing a caterpillar. It evidently doesn't take so long to learn it anyway, and a little passed out to the public would certainly keep the great masses of people from

tangling their nerves with their spines.

It has fallen to our lot to see the advertisers about space. Some of them seem to think that West Virginia is rather unimportant and that if they are exhibiting in Ohio and elsewhere that it is not very urgent to come here. In the June Journal we hope to give you every advertiser who helped us. Will you be loyal enough to patronize these men where it can be done? No one wants an inferior article even from a friend. But it is hardly the inferior articles that are exposed at these conventions. We shall fill our booths irrespective of those who rather carelessly decline us, but please remember those that do give us their support and even if it is only a word, give them yours.

This swings us back to our own Journal and its advertisers. If we asked all traveling men why they do not support our Journal. If we all wrote ten letters to ten manufacturers asking them why they did not advertise with us, do you not think at least eight would be added. The answer to your request would probably be that the Journal is not strong enough, is not widely read even in West Virginia. How do they know? This reporter takes this up because he hears a great deal about it up here, and he is reporting it as it occurs. If you do not have a number of papers at a State meeting it is evident you run short of material. If West Virginians will not send in their own good papers, that supply is short. It is a dilemma for any editor. West Virginia is a little short on research, but long on experience. And besides a great deal of the long winded research articles in the big journals "peter out" in the last to a summary that is about as helpful as a mirage on the Great Sahara. Once in a while a big one like Insulin is helpful—also for much of the rest.

We long for some enterprising young surgeon in the coal mining districts of West Virginia to rise up and startle the whole country with a dissertation on fractures founded on an experience which is second perhaps to none that will be as really helpful as it is simple and complete. Dr. Golden name your man.

Our belief is that a State Journal is not wholly a scientific affair. We have been told very forcibly lately that it is. We thought it was for furthering everything — political, fraternal, scientific—in our immediate state. We learn we are very clearly incorrect. If we had our choice in saying which would be the best object for the Journal next year "welding the whole profession in a compact, invincible body, each with his own views, but ready to fight in the common cause," or being more like the Journal of the A. M. A.? We would vote for the first simply because we have only one friendly home-like journal—the State—whereas we have ten scientific ones. We were shown we were very wrong. This reporter ceases his activities in the next number, not to resume. He started out with the mistaken belief that the public was getting to believe the profession was a little too stodgy, heavy—say, ponderous. It was his aim to try to inject a little of the so-called human touch into the matters of reporting even so dignified a proceeding as a medical meeting, and the best ones he still maintains were where the lecturers were those

who seemed to talk to you as old friends. One always gets some good support in any effort, but we have learned in no unmistakable terms lately that we were costing the society quite a little in the way of reporting extraneous matter and that so long as material such as ours filled up a medical journal it could hardly be recognized either by advertisers or the profession.

Therefore Dr. Bloss has our apology and our sympathy as an editor where the good men will not write nor report and leave it to those who at present do.

Some years ago when this Society met in Wheeling before, this reporter brought up the following question to the State Compensation Commissioner, and to his knowledge it has not been adequately answered yet. What recourse has the surgeon when he receives an emergency accident either at the plant or at his office vouched for by the company and through some misadventure the company fails to send in the papers or get the signature of the patient, or the details of his accident? The doctor has all of his details, and yet cannot obtain recompense for his services.

On April 4th, the Ohio County Society elected Noome, Armbrecht, Gilmore and Hall delegates to the State meeting. They also voted to instruct for a paid secretary to devote his time to the society as voiced in the "Wisconsin idea."

The Academy of Medicine again failed to land the piece of property it was after. The price was a little matter of sixty thousand. The Knights of Malta promptly stepped in and obtained it. We know many of these men and their salaries are nowhere near that of the average physician, but they moved together and had the courage. I have heard it said they could make handsomely on their bargain.

As we have accounted for every hour for all of you, and this includes the Honorable Mrs. Doctor, we should expect you to stay the whole three days, and not under any circumstances go home without attending the informal ball Thursday night at the Fort Henry Club.

We desire to call your attention again to the fact that all activities will be in one building, save, of course, those of entertainment.

A trip to the penitentiary at Moundsville will enable the ladies to become familiar with that celebrated institution. This is really an interesting experience and well worth the beautiful ride along the river past one of the best hospitals and most imposing nurses' homes in the state, Glendale Hospital, where Dr. Ashworth does most of his work. Then there is "The Mound." You return that evening to the banquet at which both the doctors and their wives will participate. This is at the Scottish Rite Cathedral. Wednesday afternoon we aim to have the ladies see our country club —reception and tea.

From the above you can see we are desirous of you rewarding the wonderful help and wisdom you receive from your wives year in and out by bringing them with you and having them see just what a good organization you belong to.

We close again with the earnest request for you to come and do your part. About this time we strongly suspect some of you are beginning to make excuses, "Too long a trip," "Best friend's wife going to be confined," "The whole thing is run by

a few men anyway," "What good will they do?" "We still have the same old things to contend against." Maybe you don't believe in blocs—as a good many of us do not. They are, however, realities, not theories. If you stay away from making your presence felt, you can scarcely blame any future predicament we find ourselves in. From watching them afar off we believe the men usually in the firing line of medical societies are the best men to take care of themselves if our organization was broken up tomorrow. It is really the stay-at-home, the non-supporter and the grumbler who are not there at meetings of their State society. Is it not a fact they need it most? Communities are becoming alive to the men who never fraternize. Some day the active ones may decide to "take a rest." Do you suppose it is they who will not continue to prosper? It certainly will not. It will be the men who never keep up, who do not help their societies' efforts to make us a better class of men.

Perhaps you have suggestions—send them to the committee. If you want information, write and ask for it. There is a committee which will gladly take up anything you suggest or ask. Somewhere in the program Dr. MacGregor has arranged is the very thing we believe you are puzzled about. If the man does not have it in his paper, request him boldly to enlighten you. Most lecturers enjoy being "ragged." Load up on something and see if you can't do your part to make the discussions the advantageous and instructive matters they should be. Make it a lively session marked by pungent debate, suggestion, questionings.

There is not a man in West Virginia who ought not to make the trip to hear Dr. Potter of Buffalo, who inverts into a breach so many of his confinements. You probably don't agree, but it is rather exciting to contemplate. Dr. Haman of Cleveland is little heard of outside of Cleveland, but ask any Cleveland man "who is who" in that city—you will be surprised. There are so many things to beckon you. Then there is the politics of a convention — all the stay-at-homes could make quite an impression if they would come, so once more, COME. Are you scientific?—Dr. MacGregor has you fixed. Are you bent on a little pleasure? — You know Wheeling. Does your wife want a little trip to see things?—Wheeling has what she wants. Send your specimens! Send your interesting things!! Send your papers!!! Send—if you really can't come—your best wishes!!!! But, above all, about May 12th, send YOU, YOURSELF, to do your part at Wheeling.

P. S.—BRING YOUR WIFE.

STATE AND GENERAL NEWS

April 15, 1924.

Dr. Jas. R. Bloss, Editor
W. Va. State Medical Journal,
Huntington, W. Va.

Dear Dr. Bloss:

It might be well to mention that Dr. E. S. Bippus of Wheeling, W. Va., is chairman of the hospital committee and will make reservations for any members of the Society who wish to communicate with him.

No announcement in regard to railroads is necessary. I believe that the B. & O. will put on a new

schedule before our meeting. Anyway, all roads lead to Wheeling at this time of the year.

Anticipating a good time for all of us when we get together next May, I am

Yours very sincerely,
D. A. MacGREGOR, Secy.
W. Va. State Medical Association.

COUNTY HEALTH OFFICERS AND THE CANCER FIGHT

It is doubtless unnecessary to appeal to the health officers for further support in the educational campaign against cancer. Each year has shown an encouraging increase in the interest in this campaign manifested by the official health officers in the United States and Canada.

This, therefore, is merely an announcement—a reminder that there will be, instead of a single National Cancer Week this year, a series of cancer campaigns beginning in the northwest on October 15th, and terminating in the extreme northeast on May 14th. The plan is to devote one month to the work in each region; the first three weeks to getting ready and the last week to carrying out the activities. The campaign is now on in West Virginia, with active workers in every county.

While most departments of health have effected liaison with the cancer committee in its county or city, there are some which have evidently not yet seen how its facilities can be of use to these volunteer groups. It is hoped this year that each department of health will work closely with the cancer committee in giving publicity to the campaign, in providing lectures, slides, films and such minor clerical service as may be necessary.

CANCER CLINICS

Cancer Clinics were conducted at both the Ohio Valley General and the Wheeling Hospitals on Mondays, Thursdays and Saturdays, beginning Saturday, Feb. 16th, and ending Saturday, March 1st. These clinics were conducted by the physicians of Wheeling as a part of the cancer campaign conducted under the direction of the American Society for the Control of Cancer, throughout the country. Any person with any suspicious pre-cancerous sign was welcome and was guided and advised as to the diagnosis and treatment.

Dr. Edward Bancroft, an interne at the Chesapeake & Ohio hospital, Huntington, died just before midnight on April 9th, from pneumonia.

One of the best liked of the younger physicians and surgeons at the hospital, his death came as a severe shock to his friends there and in the city, as his condition was not thought to be serious.

Dr. Bancroft was a native of Georgia. His home was in Athens. He attended the University of Georgia, where he received his A. B. degree, and then received his M. D. degree at the Medical College of Virginia, at Richmond.

He came to Huntington from Roanake, and was immediately made one of the two house physicians.

Dr. Festus O. Marple, specialist in surgery of the eye, ear, nose and throat, has been added to the staff of the Chesapeake & Ohio hospital, Huntington, to fill a vacancy cre-

ated by the resignation of Dr. E. D. Wells, who resigned April 1.

Dr. Marple will continue his partnership with Dr. C. M. Hawes and will maintain his offices at the Hawes-Marple Hospital on Eleventh street.

Dr. Farrell, a prominent physician of New Haven, Mason county, will move his office to Chapmansville, Logan county.

Dr. Farrell came from Roane county to Mason county eight years ago. He has interested himself in the business affairs of the community, being one of the original promoters and stockholders in the Mason County Bank, at New Haven. He was one of the active promoters of the New Haven Pottery.

HOSPITAL MOVEMENT IS INDORSED BY DENTISTS

Movement sponsored by the Methodist Church, South, to found a hospital in Huntington, such as the church operates in large cities in other states, was indorsed Monday night by the Huntington Dental Society. About twenty-five members were present at the meeting which was held in the Hotel Frederick.

DR. BRADLEY FUNERAL

Funeral services for Dr. A. D. Bradley, of Mount Hope, W. Va., who died at Fort Lyons, Colorado, were held at Ona, W. Va., under the auspices of the Huntington Masonic Lodge No. 53.

The late Dr. Bradley was born at Dry Creek, Raleigh county, May 3, 1889. He received his early education in the public schools, later attending Mount Hope high school, Madison Normal School of Pharmacy and University of Baltimore, Md., where he received the degree of Ph.D. He was associated with the late Dr. E. B. Bradley, of the Bradley Drug company, until the death of the latter, August 6, 1921, when he became the owner of the firm.

He also had interests in other business firms throughout southern West Virginia and was a director of the Laurel Creek Fuel Co., a stockholder in the Huntington Drug Company, and other coal interests.

He had taken high degrees in Masonry, and was a member of the Charleston Consistory and Beni Kedem Temple.

Surviving him is his wife, Mrs. A. D. Bradley, of Mount Hope; his father and mother, Mr. and Mrs. Elijah Bradley, of Ona; three brothers, Dr. J. M. Bradley, of Logan, C. D. and E. W. Bradley, of Ona; two sisters, Mrs. H. R. Allen, of Tunnelton, Ind., and Mrs. O. L. Price, of Huntington.

Dr. E. S. Buffington, dean of Huntington physicians, is in a hospital at Columbus, O., where he underwent a surgical operation.

Dr. Buffington is the eldest son of the late Peter Cline Buffington, first mayor of Huntington. He is a veteran of the Confederate Army. He has been a practicing physician in Huntington since the earliest days of the city.

Dr. Walter W. Point, of Charleston, announces his withdrawal from general practice to devote his attention exclusively to obstetrics.

A joint meeting of the Cabell and Kanawha Medical Societies was

held in Charleston, April 14th, at the Kanawha Hotel.

The principal addresses were by Senator Clyde Johnson and Dr. J. C. Bloodgood, of Baltimore.

Senator Johnson's address was closely followed by the members present and showed that he had studied the accomplishments of the medical profession in our fight with disease, very carefully indeed. It was an address that was of great merit. He has promised to let the Journal have it for publication. The medical profession of West Virginia stands deeply indebted to Senator Johnson for his courageous stand at the last session of the Legislature for the defeat of much dangerous legislation in matters pertaining to the public health. Without his vigorous action, quite a great many bills of injurious character would probably have been passed.

Dr. Bloodgood's address on cancer needs no comment. He has acquired a national reputation as an exponent of education of the laity along the lines of cancer prevention. In this field he has done great good. His long experience in dealing with cancer has given him pronounced views while the vast amount of material at his command has developed great skill in the diagnosis of this disease in its early and curable stages. His talk was largely upon cancer of the breast. When we sit down and think his address over, it seems that but two things stand out. First, that soap and water had marvelous virtues, and secondly, that it was almost useless for any of us to acquire sufficient diagnostic skill because of our limited possibilities, to ever be sure that we could pass an opinion upon any tumors of this organ. The average man felt overcome by a realization of his abysmal ignorance of this field and the hopelessness of overcoming the handicap. It was a great address.

After the scientific program was completed a banquet was held in the dining room. Many interesting talks were made.

This is the second of the joint meetings of these two societies. We cannot but feel that they are proving of great good in the developing of the spirit of friendship and fellowship among the members of both.

At the recent meeting of the West Virginia Tuberculosis Association in Charleston, Dr. Walter E. Vest, of the staff of the Chesapeake and Ohio Hospital, Huntington, was elected president for the ensuing year.

Dr. F. M. McCarty of Cincinnati addressed the Cabell County Medical Society on the evening of April 10th. His address was upon "Unusual Head and Throat Injuries."

Dr. T. W. Moore and wife of Huntington recently spent several days in New York.

Fire in the Bair building at Beckley injured the offices and equipment of Drs. C. S. Smith, J. M. Higgens, A. H. Grigg, J. E. Coleman and O. B. Lynch. Dr. Smith was the most seriously damaged as practically all of his equipment and fixtures were destroyed.

BOOK REVIEWS

Practical Chemical Analysis of Blood—By Victor C. Myers, Ph.D. Second Edition. C. V. Mosby Co., publishers, St. Louis. Price $5.00.

This second edition is just twice the size of the first, and contains,

in addition to the methods which the author has found most serviceable, discussions of other methods of accepted value. The Folin-Wu system is described in detail.

Chapters have been added on the chemistry of the blood in urologic conditions, the toxemias of pregnancy, and infantile conditions.

The chapter on blood sugar has been thoroughly revised to take in the recent introduction of insulin. A brief summary of the knowledge required of the chemistry of the blood to properly administer insulin, together with the method of giving it, is added. Variations in the normal renal threshold are explained and stressed.

A valuable feature of the work is the discussion on the interpretation of the various findings in each chapter.

In the appendix, we find the first part devoted to a discussion of colorimeters of different types, and their use. In the second part, a list of standard solutions and reagents for use in these tests is given in a quickly available and convenient form.

For physician and laboratory worker alike, this work contains much of value and interest. The most recently devised methods have been incorporated, and it can be said that it is most comprehensive. —F. C. H.

Methods in Medicine—The Manual of the Medical Service, of George Dock, M. D., Sc.D., formerly Professor of Medicine, Washington University School of Medicine; formerly Physician-in-Chief Robert A. Barnes Hospital, St. Louis. By George R. Hermann, M. D., Ph.D., Instructor in Medicine University of Michigan; formerly House Officer Peter Brent Brigham Hospital, Boston; formerly assistant in medicine, Washington University; formerly Resident Physician Robert A. Barnes Hospital, St. Louis. Illustrated. St. Louis. The C. V. Mosby Company, 1924. Price $6.50.

The Beaumont Foundation Lectures Subject, The Antidiabetic Functions of the Pancreas and the Successful Isolation of the Antidiabetic Hormoni-Insulin—By J. J. R. MacLeod, Professor of Physiology University of Toronto, and F. G. Banting, Research Professor University of Toronto. Series Number Two. Auspices of the Wayne County Medical Society, Detroit, Mich., 1923. Published by the C. V. Mosby Company, St. Louis. Price $1.50.

Management of the Sick Infant—By Langley Porter, B. S., M. D., M. R. C. S. (Eng.), L. R. C. P. (London), Professor of Clinical Pediatrics, University of California Medical School; Visiting Physician San Francisco Children's Hospital; Consulting Pediatrician, Babies' Hospital, Oakland; Consulting Pediatrician, Mary's Help Hospital, San Francisco; and William E. Carter, M. D., Assistant in Pediatrics and Chief of Out Patient Department, University of California Medical School; Attending Physician, San Francisco Hospital, San Francisco. Note—Second Revised Edition. Illustrated. St. Louis, C. V. Mosby Company, 1924. Price $8.50.

The writers have been impressed with the fact that they have been unable to find any textbook in English language which deals exclusively with the peculiarities of disease as it occurs in infants. There appears to be a need for such a work. It has been our endeavor to codify the things that have seemed

to aid us in dealing with sick babies and to present them in this volume; and it is our hope that our presentation may help the practitioner of medicine and through him be of some service to sick infants.—L. P., W. E. C., San Francisco.

International Clinics—A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynaecology, orthopaedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the collaboration by Chas. H. Mayo, M. D., Rochester, Sir John Rose Bradford, M. D., London, William S. Thayer, M. D., Baltimore, Frank Billings, M. D., Chicago, A. McPhedran, M. D., Toronto, Sir Humphrey Rolleston, K. C. B., M. O., D. C. L., Seale Harris, M. D., Birmingham, Alabama, Hugh S. Cummings, M. D., D. P. H., Washington, D. C., John G. Clark, M. D., Philadelphia, James J. Walsh, M. D., New York, Charles Green Cumston M. D., Geneva, John Foote, M. D., Washington, D. C., A. H. Gordon, M. D., Montreal, Charles D. Lockwood, M. D., Pasadena, California. Correspondents, James Burnet, M. D., Edinburgh, Thomas Linn, M. D., Nice, France. Thirty-third Series. Volume IV, 1923. Volume I. Thirty-fourth Series 1924. Philadelphia and London. J. B. Lippincott & Co., 1924.

Geriatrics: A Treatise on the Prevention and Treatment of Diseases of Old Age and the Care of the Aged—By Malford W. Thewlis, M. D., Editor Medical Review of Reviews; Associate Editor The Therapeutic and Dietetic Age. With introductions by A. Jacobi, M. D., L. L. D., and I. L. Mascher, M. D. Second Edition, revised and enlarged. St. Louis, C. V. Mosby Company, 1924. Price $4.50.

MEDICINE AND SURGERY

April 9, 1924.

Dr. James R. Bloss, Editor
West Virginia Medical Journal,
Huntington, W. Va.

Dear Sir:

Will you kindly publish in your Journal the following information concerning examinations by the National Board of Medical Examiners.

Part I, June 19th, 20th, 21st, 1924.

Part II, June 20th, 21st, 1924.

All applications for these examinations must be made on or before May 15th, 1924.

Further information may be obtained from the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

Very truly yours,
J. S. RODMAN, Secy.

Philadelphia Academy of Surgery
THE SAMUEL D. GROSS PRIZE
Fifteen Hundred Dollars

Essays will be received in competition for the prize until January 1, 1925.

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Sur-

gical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1925.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M. D.,
JOHN H. JOPSON, M. D.,
EDWARD B. HODGE, M. D.,
Trustees.

Philadelphia, March 15, 1924.

THE CANCER MORTALITY IN THE LAKE REGION

Dr. George A. Soper, managing director of the American Society for the Control of Cancer, under the direction of which seven States in the Lake region began a month's campaign February 15, said that according to the 1920 report of the Bureau of Census 20,605 persons died of cancer that year in six of these states. These states, Illinois, Indiana, Kentucky, Michigan, Ohio and Wisconsin, are included in the registration area. West Virginia, which is also holding its campaign at this time, is not and no federal statistics regarding this State are available. Of these 20,605 deaths 9,757 occurred in the rural districts and 10,848 in the cities.

The average mortality from cancer in the entire registration area in the United States in 1920 was 83.4 per 100,000 population. All of the States mentioned above had higher rates than this except Kentucky which had the remarkably low recorded rate of 56.3. Michigan came next with 83.5 and then Wisconsin with 88.2. Ohio had a rate of 89.0, Indiana, 89.9, and Illinois, the highest in the group, 91.8.

A peculiar fact with reference to the statistics in this region is that, while Kentucky had the lowest rate for any of the States, Louisville, Kentucky, had next to the highest rate of any of the registration cities in this district. This rate was 108.0, exceeded only by that of Cincinnati of 132.6. The other cities as stated in the Census Bureau's figures for 1920 had death rates as follows:

Dayton and Columbus, Ohio, 106.9 and 102.6, respectively. Grand Rapids, Michigan, followed

with 100.1, then Indianapolis, 98.1, and Chicago, 95.3, which was only slightly higher than the rate for the State of Illinois. Then came Toledo, Ohio, with 90.8, Cleveland with 82.6, Detroit, 62.8, Youngstown, Ohio, 60.9, and Akron, of the same State, 40.9. The average death rate in the cities of this class throughout the United States was 99.8.

Not long ago the Department of Commerce issued a report based on returns compiled by the Bureau of the Census, which shows that the total deaths from cancer in the United States during 1922 was 93,000, or 4,000 more than in 1920. In commenting on these figures Dr. Francis Carter Wood, Director of the Institute of Cancer Research, Columbia University, and a member of the Advisory Council of the American Society for the Control of Cancer, said he believed the Census Bureau's figures were from 20 to 30 per cent below the actual figures, as it has been shown that postmortem examinations reveal unexpected cancer in about 20 per cent of the people examined. But, he said that the apparent rise in the rate did not necessarily mean that more people meet death from cancer but that their ailments are being more accurately diagnosed.

"That the reported deaths from cancer will increase as years go by, there is not the slightest doubt," said Dr. Wood. "The certification of deaths in many European states is far more accurate than in this country, and those who have the best record show the highest cancer rate, so that in a way a reported high cancer rate is the best testimony of the accuracy of the death certificates. These facts, therefore, prove beyond question the importance of redoubling the efforts on the part of those who have so generously given of time and money in support of the activities of the Cancer Society."

The campaign in the Lake region, which is the fourth of a series of six Regional Campaigns designed to cover the entire country and Can, ada, was primarily intended to inform the lay public as to the initial symptoms of the disease that they may seek treatment when it is in an early and often curable stage. It will doubtless also result in more accurate diagnoses by physicians. It is an accepted fact that in view of the inability of science to find a cure for cancer, a campaign of information is the best available means of reducing mortality from it.

MEDICAL TREATMENT OF PEPTIC ULCER WITHOUT ALKALIS

In the opinion of Anders Frick, Chicago (Journal A. M. A., Feb. 23, 1924), the chief therapeutic indications for the treatment of gastric ulcer should be: to check excessive secretion of gastric juice, to inhibit excessive peristaltic contractions as far as possible, to relieve intragastric tension and pyloric spasm, and to cause inflammation to subside. Frick pleads for: (1) A sedative and antiphlogistic treatment of peptic ulcer in cases in which no surgical complications are present. (2) The systematic and prolonged use of bismuth subnitrate "a hautes doses," as advocated by Trousseau. (3) The restriction of the use of alkalis to only those cases of peptic ulcer in which bismuth fails to relieve pyrosis. (4) The ambulatory

management of those cases of peptic ulcer which are not "acute" and of those which are not complicated by marked anemia, gastric dilatation or gastroptosis. (5) The prevention of recurrences of peptic ulcer or, in other words, for the overcoming of the so-called tendency to peptic ulcer, by the eradication of infectious foci, by the exercise of moderation in eating, drinking and smoking, and by the establishment of spontaneous evacuation of the bowels. (6) The immediate use of bismuth subnitrate, for a short fast, and for a gradually increasing diet in case symptoms of peptic ulcer should recur.

CLINICAL SIGNIFICANCE OF HUNGER PAINS

In order to determine the relative frequency of hunger pains in the more common abdominal disease, an analysis was made by William H. Higgins, Richmond, Va. (Journal A. M. A., Feb. 23, 1923), of 162 clinical histories of patients with peptic ulcer, chronic cholecystitis and chronic appendicitis operated on over a given period. In the first group there were thirty-three cases of chronic cholecystitis. Of these, five, or 15.4 per cent, gave a definite history of food relief. In the second group there were forty-seven cases of chronic appendicitis. Of these, seven, or 17.5 per cent, showed food relief. In the third group there were thirty-four cases of combined chronic cholecstitis and chronic appendicitis. Three, or 8.6 per cent, gave a history of food relief. In the fourth group there were forty-six cases of peptic ulcer. Of these, twenty-one, or approximately 50 per cent, gave a history of food relief. The interesting feature in this summary is the relative frequency of hunger pains in gallbladder, appendical and duodenal infections. Relief of pain by ingestion of food has been generally recognized as a cardinal symptom of duodenal ulcer, and has served as one of the most important differential points in the diagnosis of this condition. It is rather remarkable that slightly less than one half of the ulcer cases in Higgins' series gave this history. The age of the patient, duration of the illness, percentage of hydrochloric acid or roentgenologic studies apparently bore no relation to the incidence of this complaint. The most striking variation in the operative findings was the presence or absence of adhesions. Although all patients with chronic cholecystitis showing food relief had adhesions, more than one half of those not giving this symptom likewise have the same type of adhesions. In the series of chronic appendicitis, five of the seven patients giving a history of food relief had adhesions, while thirteen of the forty patients without food relief had similar adhesions. Two cases of benign pyloric hypertrophy are reported. The one in which relief was obtained by food presented duodenal adhesions, and the other, in which there was no hunger pain, showed no adhesions. It is evident that hunger pains may arise from normal rhythmic gastric contractions even in the absence of any demonstrable lesions and that they are not pathognomonic of peptic ulcer. The most probable cause of hunger pains is a duodenal reflex resulting either from the absorption of bacterial toxins through the branches of the vagi or from a local

inflammatory process in the duodenum. The presence of adhesions in the extragastric lesions is undoubtedly a factor, but is not essential to the production of this symptom.

TRANSPLANTATION OF URETERS INTO RECTUM

The method of transplantation reported on by Charles H. Mayo and Waltman Walters, Rochester, Minn. (Journal A. M. A., Feb. 23, 1924), consists of intraperitoneal isolation of the right ureter, and its division about 2.5 cm. from the wall of the bladder. A longitudinal incision is made through the outer coats of the rectosigmoid opposite the isolated ureter, which is carried to the mucous membrane, but not through it. Lateral separation is made of tissues each side of the incision, and at its lower end a puncture large enough to insert the ureter is made through the mucosa. After splitting the lower end of the isolated ureter for 0.6 cm., it is drawn through the opening into the bowel by a suture fixed to its end, the needle emerging 1.2 cm. below it in which position it is anchored by tying the suture externally on the bowel. Interrupted sutures approximate the divided muscle of the intestine over the ureter, the alternate sutures catching a bit of the outer wall of the ureter, and securely fixing it in position. A continuous row of sutures over the line of the interrupted sutures makes an additional protection. The purpose and reason for this type of operation is that the ureters, being covered internally for a distance of 3 cm. by the intestinal mucous membrane, will close with any internal pressure; hence the duct entrance will be closed against ascending gases and liquids, and yet the normal intermittent emptying of the ureter will occur coincident with peristalsis. The left ureter is transplanted from ten to fourteen days after the right, and the mucosa of the bladder excised by knife or cautery later. Both ureters were transplanted in twenty-eight patients; one patient died from peritonitis (an operative mortality of 3.5 per cent). Four patients of the series, all with good operative results, died within three years after operation; one from pulmonary tuberculosis, one from typhoid fever, one from general carcinomatosis originating from the chronically irritated bladder mucosa, and one from pneumonia. Two patients with exstrophy died from carcinoma of the bladder, which was well advanced when first seen. Operation was not performed. Seventeen of the twenty-eight patients returned for removal of the bladder; this was done either by knife or by cautery excision and suture, or by excision and transplantation of the fascial flap. All of the patients from whom letters have been received say they have enjoyed living since the operation, which diverted their urine from their clothing to the rectum, and that they have been able to carry on comfortably their various duties in life.

IS SCARLET FEVER MERELY A STREPTOCOCCIC ANAPHYLAXIS?

The circumstantial evidence is very strong in the four cases reported by Virginius Dabney, Washington, D. C. (Journal A. M. A.,

March 22, 1924), that the infection was of scarlatinal origin, on the one hand, and that no other evidence of the disease was evident, on the other. The patients were all nurses, who shared with other medical attendants a relative immunity from infections, had never had scarlet fever, and had all been exposed to the disease in the scarlatina pavilion shortly before the infection of the mastoids and antrum. From their throats and noses was isolated practically in pure culture the hemolytic streptococcus, and the same organism was repeatedly secured from the antrum of the one patient and the middle ear and mastoid of the other three. Two of them had small tonsils, and two had none. One patient was a carrier of the Klebs-Loeffler bacillus some weeks before the mastoid infection, but this was absent at this time. Some few epithelial scales were found on the feet of the mastoid patient after being in bed two weeks, but the feet of any patient who has high fever and who has been in bed for two weeks will almost certainly show desquamation on the soles and between the toes. Dabney throws out the suggestion that those exposed to the infection, who show no true scarlatina and yet do show a hemolytic streptococcic infection shortly after exposure, can fairly be assumed to have become sensitized to the particular strain of streptococcus which was seemingly causing scarlet fever; in other words, to have scarlet fever limited to the mastoid and antrum of Highmore, as it was in these four cases. In further corroboration of this belief was an anomalous manifestation of scarlet fever. The cultures of all four patients, and of all the patients with whom they had been in contact, were morphologically identical and behaved alike in all culture mediums, being hemolytic. Finally, Dabney asks: If the hemolytic streptococci in question, derived from full blown scarlet fever cases, did not cause scarlatina in these four nurses, but merely an infection of the mastoid and antrum, why did it cause scarlatina in those with whom the nurses came in contact and from whom their local infections were derived? Reverting to the original supposition, the answer would be: Because scarlatina is the result of a sensitization to the streptococcus in its more malignant forms. This would explain its behavior in those who exhibit true scarlatina and in those who have merely local manifestations, such as the four reported here, and those numerous, so-called anomalous cases which show a slight nephritis, sore throat (streptococci), fever and little or no rash.

TREATMENT OF SEPTICEMA AND LOCAL INFECTIONS

The intravenous injection of mercurochrome-220 soluble and of gentian violet is discussed by Hugh H. Young and Justina H. Hill, Baltimore (Journal A. M. A., March 1, 1924), and illustrative cases are cited. In a case of general septicemia due to the colon bacillus, the patient being almost moribund, the condition cleared up following the intravenous injection of 34 c.c. of 1 per cent mercurochrome. The rapidity of restoration from imminent

death to normal health is said to have been almost unbelievable. In a case of staphylococcus septicemia and extensive subcutaneous abscesses following severe injury an intravenous injection of mercurochrome resulted in the rapid disappearance of an extensive retroperitoneal infection (perinephric abscess) without operation. In a case of retroperitoneal abscess following bladder instrumentation, a colon bacillus infection, intravenous injection of mercurochrome caused a rapid disappearance of the abscess. In a case of carcinoma of the bladder involving the left ureter, an extensive excision was done with the cautery. Two months later pyonephrosis developed on the left side, which disappeared after intravenous treatment with mercurochrome. A case of bilateral chronic pyelitis due to Bacillus lactisaerogenes was treated by intravenous injection of mercurochrome with complete cure. A case of chronic cystitis following prostatectomy, with colon bacillus and Staphylococcus albus infection was sterilized by intravenous injection of mercurochrome. A child, very septic from pyelitis due to colon bacillus apparently was saved by mercurochrome intravenously. In addition to these seven cases, mercurochrome has been used intravenously in several other cases of pyelitis and also other local infections. In some of the cases of pyelitis the urine was promptly sterilized. In others there was improvement, but bacteria still persisted in the urine. This was true also of a case of chronic prostatitis and cystitis with colon bacillus infection in which, after the injection of 6.8 mg. per kilogram, the organisms still persisted. In other cases, however, the sterilization of the urine was very prompt and permanent after a single injection of mercurochrome in doses varying from 3 to 5 mg. per kilogram. It is evident, therefore, that the drug is not efficacious in all cases, and it is probable that colon bacilli differ from one another in their resistance to mercurochrome just as they differ markedly in other respects. In their experimental and clinical work on antiseptics, the authors have been greatly impressed with the value of the gentian violet in the local treatment of staphylococcus infections. The five cases treated by gentian violet comprise just as desperate cases as some of those treated by mercurochrome and gave just as brilliant results. In all of these cases the infecting agent was a staphylococcus. Gentian violet has had an apparently selective action against gram-positive staphylococci. Cases in which it did not affect the streptococcus or the colon bacillus are cited. In the case of gentian violet, the intravenous injection of 5 mg. per kilogram is immediately followed by a most alarming cyanosis, which is simply due to the dye in the blood, which causes no harm and passes off in a few hours. Otherwise, practically no reaction results. The authors believe that 7, and possibly 10, mg, may be administered, once, without injury.

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A STUDY OF INFANCY AND CHILDHOOD

President's Address Delivered at the Fifty-seventh Annual Meeting of the West Virginia Medical Association, Wheeling, May 1924.

By ROBERT A. ASHWORTH, M. D.
Moundsville, W. Va.

The former presidents of our association have discussed in the layman's language questions of general interest to the public and profession. In this address I am going to follow their precedent. We have wisely left the scientific questions to the members of the association and to our distinguished guests.

To my mind too few of us live with the children; most of us travel the pathway of life, uninterested, ahead of them and have not stopped to "Behold them coming to be kings of all the earth, to bring their gifts of purity and love to all the nations, to lift a thousand burdens with their touch of holy mirth." The greatest assets in the world today are our boys and our girls. The America of the future will depend upon what we do for the children of today. If we want to reduce infantile mortality we must begin with the care of the mothers during the antenatal period.

Prenatal Care

The expectant mother should be encouraged to visit her physician as soon as she suspects pregnancy. Only one mother in seventeen receives proper medical care and 20,000 mothers die annually from childbirth. Urinalysis should be made; blood pressure should be taken; heart, lungs and abdomen examined; the pelvis measured before the seventh month of gestation in all primipara; the mother advised to avoid violent exercise and contamination of the gentalia; how to dress correctly; the regulation of diet and of the bowels as well as the care of the nipples.

During pregnancy frequent urinalyses should be made, the blood pressure taken, and the patient watched for the premonitory signs of the toxemias of pregnancy which cause from one-third to one-half of the maternal deaths and one-twelfth of the fœtal deaths. Proper prenatal care will always lessen this death rate. Good care given a prospective mother makes a better baby, while over-work, underfeeding, illness and neglect increase the mortality rate of the mother and thereby increases infantile mortality.

Premature births, birth traumata, congenital weakness and malformation were responsible in the registration area in 1915, according to the U. S. Children's Bureau, for the deaths of 55,000 babies or one-third the deaths of all the babies under one year of age. More than half of these youngsters could have been saved and many still-births and miscarriages prevented had the mothers been properly advised and cared for during pregnancy according to the standards suggested by J. Whitbridge Williams of Johns Hopkins University. These standards include "a minimum obstetrical examination, continued supervision by a physician through at least five months of pregnancy, monthly examinations of the urine at least through the last five months and, in case of a first pregnancy, measurements of the pelvis to determine whether any structural deformity exists which is likely to interfere with birth." Besides this care, from four to ten postnatal visits should be made. Prenatal and postnatal care is emphasized by the fact that 100,000 babies died in the United States and 3,670 died in West Virginia in 1923 before they had completed the first month of life.

Poverty is the babies' greatest enemy. Wherever there is much poverty, the death rate is high and it rises higher according to the degree of poverty. The death rate of the poor is three and one-half times that of the well-to-do. Disease follows in the footsteps of poverty, blighting and destroying the lives of babies as mercilessly as a freeze destroys the apple blossoms of Springtime. The survivors are weak, dull, backward in their studies and inefficient in the battle of life. Many of them become discouraged and defiant of our laws and later find their way into our reformatories and prisons. Frequently poverty drives the mother to work to help support the family. This lessens the care of the baby and substitutes bottle feeding for breast feeding. "The hazard of having mixed feeding is twice as great and that of artificial feeding is four times as great as when the babies are breast fed." The mortality rate for babies whose mothers work outside is twice as great as it is when the mothers work at home.

In a survey by the Children's Bureau in the rural districts of Montana it was found that the maternal deaths were 12.7 per thousand while in a rural area in Kansas the death rate was 2.9 per thousand, and in rural Wisconsin six per thousand. In other words, childbirth is nearly four times as fatal to mothers in Montana as in Kansas and twice as fatal as in Wisconsin. The proportion of mothers attended by physicians in Kansas was 95%, in Wisconsin 68%, while only 47% in Montana were deliv-

ered by physicians. I mention these facts in order to emphasize the need of a physician during confinement. By supervising 4,496 mothers of the low income handicap throughout pregnancy and for one month afterward in the city of New York the number of deaths of babies was reduced 42% lower than that of the average for the whole city.

"Oh health for the lamb in the meadow,
And health for the bird in the tree,
But here under Heaven's shadow,
No health, hapless baby, for thee."

Is it a crime for an innocent child to be compelled to live in a sick, diseased body or to go through life deformed, blind and so diseased as to be fit only to die? There is no more important public service that we physicians can render than to teach the people the vital need of a thorough understanding of child welfare and the individual responsibility of each citizen in carrying out such measures are are needed for the saving of the young child and the promotion of its health. The physicians are the most powerful influence in the world and in the home for the promotion of health. We should become more interested in the conservation of helpless childhood.

The health of an adult depends in a large measure upon the health of a child. Far too many of our babies while in the mother's arms have the fangs of disease fastened upon them and are thereby sentenced to die in infancy or to live and grow up puny and weak in both body and mind. Such children with stooped, flabby, feeble bodies during the first few years of life have a terrible handicap laid upon them which makes them inefficient in the race from the cradle to the grave.

Our task is as plain as the eternal hills around us; our opportunity for service is unbounded; our ability to lead in this work is unquestioned; our faith in rearing a healthy generation under the direction of scientific medicine is limited only by our interest in the work and our love for mankind.

From the time our forefathers crossed the Alleghenies and settled in West Virginia to the present moment our death and ill-health rate have been entirely too heavy. Tonight there is a vast army of boys and girls, men and women, sick in the United States from preventable causes. We have prevented typhoid from the vast armies engaged in war; let us try to prevent disease in the far greater army of our citizens engaged in the peaceful pursuits of life.

If we would prevent this condition we must begin the work with the babies, the pre-school children, and the children of the grammar school. This work must not be done for groups of children in isolated communities or states, but must be made universal throughout the United States, for no healthy child can be safe as long as it comes in contact with a diseased child.

Infantile Mortality

In the United States two hundred and fifty thousand babies under one year old die annually. Last year there were 3508 such deaths in West Virginia. The physicians claim that 100,000 in the United States and 1,500 in West Virginia could be saved by the application of scientific medicine and the well known principles of hygiene and infant care. In the last few years we have all been grieved at the

mine disasters which killed 181 at Eccles and 110 at Benwood while we have only a passive interest in the one thousand five hundred infants that die annually in our state from preventable causes. These children do not elect to die but are sacrificed by things which are done to them or by things which ought not to be done. In most cases their lives are snuffed out by poverty, ignorance or neglect. It was more dangerous to be an infant during the world war than to be a soldier in the army. I fully agree with the man who said "The most dangerous occupation in the world is that of being an infant." No mortality rates are so shocking and none brings so much grief to our homes as the infantile mortality rates.

On the 6th day of April, 1918, there was inaugurated in the United States a movement known as "Children's Year Campaign," with the laudable purpose of nothing less than the saving of the lives of 100,000 babies during the year. This movement was prompted by the enormous and unnecessary slaughter of the innocent which had been going on in this country. During this campaign thousands upon thousands of leafllets with instructions about the care of infants were distributed and children's clinics were held throughout the length and breadth of this country where babies were completely examined, weighed, measured, abnormalities noted, defects reported and the mothers advised about the care of their infants. This movement was really the beginning of a new era in the child welfare work in America; its effects have permeated the whole social strata of our young lives and as the years go by the death rate of children will continue to decrease.

Though our mortality rates in the last two decades have been reduced fifty per cent, they are yet far from satisfactory. In Russia we are told that one child out of four dies the first year. In New Zealand the death rate is one to twenty. In the United States it is a little less than one in ten. Mothers love their babies just as much in the United States as in New Zealand and are just as intelligent, except in infant feeding and hygienic care, but our mothers make mistakes which cause twice the death rate here as there.

In the United States in 1921 the infantile mortality rate was 76 to one thousand. In our border state of Ohio it was 75, in Kentucky 62, in Virginia 79, in Pennsylvania 88, and in West Virginia it was 83. Pittsburgh with its death rate of one to nine, lost more babies in proportion to births than any other large city for which records are available. But this death rate does not tell the whole tragic story for "excessive mortality in infancy implies excessive mortality in later life."

The Pre-School Child

This period is from two to six years in most states but in some places children do not enter school till seven. The children of this age have been neglected till recent years. This period is the most rapid and fundamental in growth, both physically and mentally. Most of the physical defects of school children developed or pre-existed in the pre-school period. Nearly every case of the mentally defective child is present and should be recognized in the pre-school years.

Feeble-minded children are frequently misunderstood, ill-managed and maltreated because parents do not understand them. An early diagnosis should be made and the parents advised how to manage them.

A large proportion of all blindness occurs during this period; three-fourths of all deafness exists before a child reaches its sixth birthday. Of all cripples, in one-third the onset is before the age of five. Eighty-one percent of deaths from contagious diseases occur under five. Eighty percent of all causes of speech defects are present before school age. The blind child, the deaf child, the crippled child and the child with defective speech should be looked after as soon as the defects are noted and not after the child enters school. If other civic organizations would work to prevent blindness, deafness, the loss of limb and deformity as the Rotarians work for crippled children, fewer children would say the following prayer of the defective child:

"O Lord, I come to Thee as the Supreme Comforter. I am called the defective child. The sons and the daughters of men turn from me. They look at me in pity and in scorn. My father thrusts me from him. My mother weeps over me and mutters: 'I am a victim of ignorance and sin.' The teacher says I am 'backward' and 'hopeless.' My classmates call me 'fool.' Oh, how I hunger for love! for the strong embrace of father! for the soothing caress of mother! and how I yearn for playmates, yet none will play with me."

In the pre-school age more than 21 percent of all deaths occur and this is saddened by the fact that 75 percent of these deaths are preventable. The dangers diminish until the fifth year then the chances of life are greatly increased. The predisposing causes are the same as in infancy: poverty, ignorance and neglect. The problem of the child under two is to reduce the death rate while the problem of the pre-school age is to prevent disease and reduce morbidity. The defects of the pre-school age are responsible for the defects in school children, and for the greater part of the rejections of one-third of applicants for the army. At Gary, Indiana, in 1922, 4,348 children between two and seven years were examined. Ninety-six and nine-tenths of boys had defects and ninety-three and six-tenths of the girls. The actual number of children found without defects was only 4.8 percent. One and four-tenths percent had defects of the nasopharynx; 33 per cent had adenoids and 56 per cent had abnormal tonsils.

The School Child

The school child is not so much neglected as the pre-school child, but three-fourths of them, or 16,500,000, have health defects. Every medical inspector of schools has been awe-stricken at the high percent of abnormal and defective children found in our schools. Here is where one is most impressed by the fact that so many children have an unequal opportunity at the beginning of life. Practically in every school room in our state we find one or more children under-weight with poor nutrition, skin tight over face and flabby and loose over the body, sunken eyes, pinched nose,

anaemic cheeks, dull and old expressionless face with a languid and forlorn look.

In Children's Publication Bulletin No. 60 in 1919 it is claimed that one out of every five, or 4,500,000, school children in the United States are suffering from mal-nutrition. The most frequent deformity found in our school children is defective teeth. The Children's Bureau claims from fifty to seventy-five per cent, or from 11 to 16,000,000, have one or more bad teeth. Some authorities claim that nine out of ten children have defective teeth.

Fifteen to twenty-five percent, or three to five million, have adenoids, diseased tonsils, or glandular defects. Twenty-five percent have defective eyes, all but a small percentage of which can be corrected. One million children have defective hearing and another million have tuberculosis. Verily, verily the cry of the child in distress with the impress that disease has written all over its body should touch the heart of every physician and arouse to action the most apathetic among us.

Many years ago our forefathers decided that there should be a universal standard of literacy. The following generations founded our public school system which was meant to establish a certain minimum of education. If the past generations could do this for the mind, it is high time for the rising generation under the leadership of physicians to establish universal health for the body. It is a tragedy to try to educate a child poorly nourished or with a disease that could be prevented, or with a defect that can be corrected.

Child Labor

In the boasted land of freedom
There are bonded baby slaves,
And the busy world goes by and does not heed.
They are driven to the mill,
Just to glut and over-fill,
Bursting coffers of this mighty nation's greed.

(Ella Wheeler Wilcox.)

Strong language is used in this poetry but when we think of the two million children who work at some occupation in America, the long hours they work, the conditions under which they work, too condemning descriptive language cannot be used. Recently a series of articles has been published in some of the leading papers of the United States telling of children under ten being made "hump-backed" and stoop-shouldered in the beet fields of Colorado; of working children in Maryland being housed in pens; of children under thirteen in New York having their backs broken at their regular work in lifting trunks and baggage; of the state of Mississippi working 25% of its children and spending ten times as much on cattle as it spends on children. This great nation in its commercial madness devours too many children in the bloom of youthful innocence. Too many of our children are considered and valued in the light of cash returns instead of future citizens. This greed in many cases is due to indolent parents and is seldom necessary, while in some cases it belongs to the greed of industry itself and is never necessary. The needs of industry should have no place in a child's program and he who argues that it has insults the best thought of American citizenship. When every man is employed and when the time comes that the more mature individuals

cannot supply enough for our social maintenance, then we will consider the demands of industry for child labor, and not until then.

"No fledgling feeds the father bird;
No chicken feeds the hen;
No kitten mouses for the cat—
This glory is for men."

******

"We are the wisest, strongest race,
Loud may our praise be sung;
The only animal alive
That lives upon the young."

(Charlotte Gilman.)

Our cold and formal statistics from the 1920 census tell us that in the United States one child out of every twelve between ten and fifteen years, or 1,606,858, is working, and that 378,063 children between ten and thirteen are gainfully employed. This does not include the un-numbered thousands of other children under ten at work. Besides, this count was made in January, when children were not engaged in agricultural pursuits. All these working children are deprived of their unquestioned right to schooling, of the needed play and recreation, and of healthy development, for we know that mechanical tasks and long hours will drive children to the wrong kinds of recreation and amusement, as the dance halls, movies and pool rooms, in their leisure hours which they have at night.

Child labor contributes more than its share to juvenile delinquency. The working children of New York contribute four times their share. In a study of 4,839 delinquent children between six and sixteen years old, made by the government on "Child Wage Earners," it was found that 62% of the offenses are committed by working children. These figures are more significant because a vast majority of children do not work. The lack of mental development and the nervous exhaustion caused by speed, fatigue, close confinement and routine work are responsible for most offenses. Other causes are found in the cursing and blighting influence of the moral atmosphere of the average factory surrounding our children, where there is constant use of foul language and suggestive actions in the presence of impressionable young minds, and child labor becomes "a soul destroying occupation." In Birmingham 75% of all juvenile offenses came from boys who had been news boys for two years or more. This is true of many other occupations. These evils do not end with childhood days but curse the child and future generations as the years go by.

Child labor is drudgery. Every child should have some work to do. This work should be educative and should develop the child physically and mentally with the idea of making healthy, vigorous and efficient American citizens. Raymond G. Fuller expressed it well when he said, "No one believes in child labor. Every one believes in children's work. Child's work is advantageous to the children. Child labor is disadvantageous. Child work is educative, while child labor is exploitative."

There is an army of 1,000,000 children every year who leave school to take up some gainful occupation. Only 40% of them finish the elementary grades. Child labor creates irregular attendance in our schools. The Massachusetts Child Labor Committee prepared a paper based upon the educational figures of the United States Bureau and had it published in pamphlet

form and distributed to the school children with the following statement: "Every day that boys and girls stay in school adds nine dollars to the total amount of daily wages they can earn when they grow up. The boy or girl that stays out of school to earn less than nine dollars a day loses money." We must interest our children in education rather than wage earning. A child worker takes on unskilled mechanical tasks and shifts all through life from one job to another and seldom has an opportunity for promotion. If a child leaves school at fourteen it earns less than one leaving at sixteen. Our school leaving statistics show that nearly 60% of pupils who leave school do so for reasons other than poverty. We must teach the public the evil effects of child labor, the value of education, and the necessity of the right kind of work and play for our children.

Our child labor laws are equal to the standards of the first and second Federal Child Labor laws. In this respect West Virginia registers a white state on the map of the child labor standards. The West Virginia Child Labor Bureau states that there are 191,299 children between ten and fifteen years in the state and that only 7,431, or 3.9% of them are working. Of this number more than 2% is engaged in agriculture and less than 2% in all other industries. In our mines in 1910 we had 1,851 boys under sixteen at work, while in 1920 we had only one-fourth as many, or 472. In a government survey of the mining camps in Raleigh county, made in 1920, it was found that 29% of the boys and 8% of the girls had begun regular work compared with 70% of boys and 39% of girls under sixteen in the Shenandoah Anthracite district of Pennsylvania. Thank God, only four other states have higher standards for work in the mines and quarries than West Virginia. The worst trouble we have is the lax enforcement of the laws, which is chiefly due to the doctors as public health officials and to our school teachers.

The West Virginia Bureau of Labor, basing its figures on the 1920 census, informs us that West Virginia has a smaller percentage of its female population engaged in gainful occupations than any other state in the Union. Of the 512,788 females above ten years, only 11.2% or 5,733 are so employed. We are one of five states having no restrictions on the hours that women may work. As a health measure, a law regulating the hours of work for women and restrictions on night work in certain industries is much needed. The girls in this state work longer hours in restaurants, hotels, soda fountains and knitting mills than in any other industry.

As a public health measure destined to reduce the high mortality rate, deformity and disease of our working children, we should strongly advocate the adoption of a constitutional amendment introduced into the United States Senate by Medill McCormick in 1922, which provides that "The Congress shall have the power to limit or prohibit the labor of persons under eighteen years of age, etc." This gives Congress the power to fix minimum standards for child labor during the day and wee small hours of the night. If we can regulate the poisonous liquor traffic and the right of women to vote as citizens by constitutional amendments, can we not,

in this boasted land of freedom, save our boys and girls from child labor by another constitutional amendment? We must do this, since our Supreme Court has decided that our two former national child labor laws are unconstitutional. These laws affected only the 15% of the children in factories, canneries, workshops, mines and quarries. We must have a law that will reach the 85% of children in agriculture, domestic service, street trades, messenger and delivery service, restaurants and hotels.

If the strength of children is sapped by child labor, when they become men and women they will not have the energy and strength to maintain themselves and their dependents, and will join the pitiable, miserable army of the unfit. Verily child labor produces unhappy homes, ruined lives and diseased bodies. You cannot abuse a child without injuring society as a whole, and the burden of maintaining the diseased and crippled children must be borne by all. No statistics can give the loss of happiness and the amount of disease caused by child labor. Or as Spargo said, "Who shall tally the deaths of childhood hopes, ambitions and dreams? How shall the figures show the atrophy of potential genius, the brutalizing of potential love, the corruption of potential purity? In what arithmetical terms shall we count the loss of shame and the development of the brute view of life which enables us to watch with unconcern the toil of infants side by side with the idleness of man?"

The stars are free to shine in the heavens above us; the lamb is free to play in the green meadows around us; the grass is free to drink in the evening dews; the flowers are free to look toward the morning sun; the beasts of the field and the fowls of the air arouse at their own pleasure while 2,000,000 American children are denied such freedom.

If we can help one child's health breaking,
We shall not live in vain;
If we can save one child the aching
Of disease or pain,
Or put one child worker back in school again,
We shall not live in vain.
(Paraphrase from Emily Dickenson.)

SYMPOSIUM ON DIABETES MELLITUS

Read Before the Mercer County Medical Society

THE ETIOLOGY AND PATHOLOGY OF DIABETES MELLITUS

By CLIFTON J. REYNOLDS, M. D.

The disease of diabetes has been recognized since the first century, and was given this name because of the presence of sugar in the urine. It was ably described by Willis in the seventeenth century, but modern work on the study of its etiology begins with Claude Bernard's work in 1857. He was able to produce a glycosuria by tinkering with a certain area of the brain. The first inkling of the relation of the pancreas to the malady was established by the experiments of Nicholas Senn, Von Mehring and Minkoewsky in the late eighties. They proved that total extirpation

of the pancreas caused a fatal diabetes. Lepine and McCallum planted the next mile-stone by proving that ligation of the pancreatic ducts caused an atrophy of the acini, but did not cause glycosuria. Further experiments showed that the fibrous remnant of the pancreas contained the undisturbed islands of Langerhans and that the extirpation of this remnant produced diabetes, the severity depending upon the amount removed. Opie in the early part of the twentieth century made the next stride by proving that the pancreas functions as a gland of internal secretion, and in 1917 Clark adjusted the crown when he proved experimentally that sugar disappeared into the heart more rapidly when the circuit included the pancreas, than when the heart alone was profused. Banting, Best, and McLeod were submerged in glory by successfully preparing a potent working extract from the pancreas in 1922. Since then Banting and Scott have proven that insulin can be extracted from other tissues such as the thymus, submaxillary and thyroid glands, and from the liver, spleen, and muscle tissue, but in a much smaller proportion than is found in the pancreas. Thus diabetes is essentially a deficiency of the secretion of insulin by the Islands of Langerhans in the pancreas, and according to modern nomenclature, the word "hypoinsulism" would better describe the condition, for other conditions may produce a glycosuria, in the absence of a hyperglycemia. Necessarily, any condition causing a true diabetes must also be a case of pancreatitis, even though the lesions are not demonstrable grossly or by the aid of the microscope.

Owing to to its protected position primary infection of the pancreas is rare, but due to its anatomical relationship, its lymphatic and blood supply, it is easy to conceive of a secondary pancreatitis following diseases of the gallbladder and lesions of the stomach and duodenum, as well as intestinal infections. Frequently at operation the surgeon notes the enlarged head of the pancreas which suggests malignancy or some inflammatory condition, associated with some adjoining inflammatory viscera, the original source of the trouble, and sometimes a glycosuria clears up after the removal of the focus.

Pancreatitis may also be of hematogenous origin following focal infections in the tonsils, teeth, or elsewhere, and may follow the acute infectious diseases. Syphilis, while not so important, does undoubtedly play some part in producing a chronic pancreatitis, as has been demonstrated by Warthin. Hereditary and racial characteristics play a predisposing part, the condition occurring more frequently in the Jewish race and less in the negro. Over-eating and an unbalanced diet certainly imposes on the pancreas, and when the pancreatic reserve is not great, like the weak heart, must succumb to continued abuse.

As regards the pathology of the pancreas in diabetes, much work has been done, with somewhat disappointing results. Surprisingly few cases show gross pathological change, but the majority show pathological changes of varying degree and type. The number of islands present may vary and also the quality, some showing hydropic change; hyalinization, fibrosis or atrophy of the insular tissue. Usual-

ly about 85% of the cases show some pathological change in the pancreas. However, in our present state of knowledge, it is impossible to make the diagnosis of diabetes from the pancreatic changes, either gross or microscopial.

In discussing the morbid physiology in diabetes it might be well in order to have a better understanding of the process to briefly outline the physiology of digestion.

The bulk of the carbohydrates digested as food is taken into the alimentary tract as starch, which is inactive. This in turn is broken down by the digestive ferments to glucose and is absorbed as such and taken to the liver through the portal circulation and resynthesized to glycogen, a polysaccharide which is stored in the body tissues but mainly in the liver, and is a readily available source of supply. When needed by the tissues it is readily broken down and discharged into the circulation as glucose, and enters into cell metabolism as such. Normally it occurs in the circulation in the amount of .06 to .12 percent, but in diabetes the percentage of blood sugar is increased. Just what part the internal pancreatic secretion plays in this process is little understood and is a matter for speculation. You are all probably familiar with the fact that glucose has a structural formula which means more to us in understanding its action than the old empirical formula C-6 H-12 0-6 we learned in by-gone days. When glucose goes into solution the atoms of the molecule undergo numerous reversible rearrangements, and upon the various rearrangements depend the various physical and chemical conditions of the solution. Enough is known to make us suspect that, to take part in the oxidative changes which ultimately lead to carbon dioxide and water, the glucose molecule must first pass into one of these isomeric forms, and possibly unite with other molecules. Hough suggests that possibly insulin plays an essential role in the preparation of the glucose molecule for its metabolic activity by bringing about this molecular rearrangement. However, it occurs to me that since the liver is the main store-house for glycogen, being 10% glycogen by weight, and that since it regulates the concentration of the blood sugar that possibly insulin exerts the controlling influence over the liver and that when this influence is disturbed, an abnormal amount is discharged into the circulation, while at the same time the liver loses some of its power to synthetize glycogen.

In the digestion of fats the fat is split up into glycerol and a fatty acid of high molecular value, and the fatty acid is absorbed as a salt of the acid. Usually, in nature, these fatty acids occur with even number of carbon atoms. In the process of oxidation the beta carbon atom is attacked, oxidized, and acetic acid plus a fatty acid of two less carbon atoms are formed. The acetic acid is further oxidized to carbon dioxide and water, while the remaining carbon chain is again attacked in a similar way until a carbon chain containing only four atoms is formed. This is called oxybutyric acid. Normally this process of oxidation is carried further, but in diabetes it stops here, for the last step only takes place in the presence of active glucose, i. e., that isomeric form of glucose which en-

ters into oxidative metabolism. Consequently beta oxybutyric acid may occur as such, may be reduced to diacetic acid, or by decarboxylization acetone may be formed.

Normally the reaction of the blood is slightly alkaline, but in diabetes the accumulation of enough of these acids draws too heavily upon the alkali reserve of the tissues, and with this accumulation in the blood and tissues, the symptom-complex of acidosis is produced. The alkalis of the body are necessary to carry on internal respiration, as they transport carbon dioxide from the tissues to the lungs and return to repeat the process. In diabetes, when the alkali reserve has been neutralized by the existing acidosis, internal respiration cannot proceed at the same rate, and in consequence the tension of the carbon dioxide in the blood and also in the alveolar air becomes lowered. When the compensatory processes which tend to neutralize the acids finally predominate, death from diabetic coma results.

THE EARLY DIAGNOSIS OF DIABETES

By T. GOOCH TICKLE, M. D.
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To mė has been assigned in this symposium the subject of the early diagnosis of diabetes. If I can succeed in impressing upon you the advantage of an early diagnosis in this disease, I will feel amply repaid for any efforts I may have put forth.

We have noticed very strikingly in our clinic, almost without a single exception, patients who have been referred to us and have been treated from a few weeks to several years at home and in a great many instances no real attempt has been made whatever to teach them how to eat. They have simply been informed that they should cut out sweets and carbohydrate foods. As you will find in the two papers that are to follow this, the diabetic should not in any way eliminate all of his carbohydrate food, but should be taught to eat a known amount each day.

There seems to be a belief among a great many physicians that it is not necessary to send their diabetics to a hospital to be trained in diet until they feel that this patient has reached the stage where insulin is needed. We hope that the public as well as the profession will become sufficiently educated within the next few years to appreciate the advantage of the early treatment in these cases just as they do now in the recognition of tuberculosis and cancer during the stage when something useful can be done in the way of treatment.

None of you would think of procrastination in the case of an old person with a sore that would not heal, nor would you attempt to ignore and treat lightly a patient with all the classical signs of tuberculosis, yet many will not take seriously the fact that a patient may have sugar in the urine although he may be able temporarily to take care of himself and not lose weight. But glycosuria in a young person is just as serious and just as fatal as tuberculosis or cancer, and especially is this so if the patient is very obese. Some authorities, as Joslin and others, claim that all very obese patients are potentially diabetics.

Joslin says that diabetes is the penalty of obesity and the greater the obesity the more likely is nature to enforce her penalty, and that it is rare for diabetes to develop in an individual over the age of twenty who is habitually under weight.

The tendency to diabetes seems to run in certain families and races. It may be largely prevented or controlled by observing the following rules:

1. Keep the body at a normal weight.
2. Avoid excesses in eating.
3. Have the urine examined twice a year and, if necessary, a blood sugar determination.

Given a case with sugar in the urine, is one justified in concluding that this is a case of diabetes or simply that the renal filter is permeable to sugar. This is a much disputed question and authorities disagree as to whether this is an alimentary glycosuria or a potential diabetic. On the other hand a case without sugar in the urine may be a case of diabetes as can be clearly demonstrated by blood sugar determination. Children with a diabetic inheritance may be subjected to a glucose tolerance test as the development of diabetes can thus be established before the ordinary tests can give any clue. Hygiene is very important. The child should be warmly glad during the winter and avoid all undue exposure, chilling, fatigue and infections.

As diabetes is on the increase I believe that the feeding of infants is somewhat responsible for this for there is a greater consumption of sweets and candies than there was in former years, for the child is taught to eat sugar over practically all cereals, fruits and foods, thus converting a fruit that was formerly a 10% carbohydrate into one of possibly 20%. They cannot eat a piece of bread without a little sugar spread upon it or unless it is covered with preserves, jam or jelly. Consequently the teeth decay early in life and a focal infection results. Thus the child that was possibly a mild diabetic formerly, is allowed to go until the pancreas is damaged beyond repair and the case becomes one that necessitates insulin. Whereas if the child had been fed properly, the teeth would have remained sound and possibly would have not been a diabetic, or at least only a mild one. Again, the baby is taken off the breast for some cause or other to become a bottle fed baby, only to be put on canned milk, which is very high in carbohydrates, and the pancreas again is overworked trying to utilize the excess of sugar.

The body disposes of incoming sugar in one of three ways. That which it needs at once for energy or heat, it burns. The balance it stores up in the form of a starch-like substance called glycogen, or in the form of fat. The process of burning and storing sugar, however, requires the help of a ferment. Just as yeast must be added to bread to make it rise or to beer to make it brew, so a ferment must be present to work the sugar in the blood. In the body this special ferment is prepared by the pancreas which functions in two ways: ①Making ferments for external secretion through its duct into the digestive tract to assist digestion, and, ②Preparing and delivering into the blood an internal secretion. It is this internal secretion of the pan-

creas with which we are concerned. Groups of cells in the body of the pancreas called the islands of Langerhans are responsible for this secretion.

Diabetes comes whenever these cells are injured sufficiently. Thus inflammation of the pancreas due to infections, as influenza or scarlet fever; stones in the pancreatic duct, tumors of the pancreas, or hardening of the arteries which carry the blood to the pancreas, may result in diabetes. The chief fault, nevertheless, usually lies in the pancreas and when that organ is injured, it is very slow to heal. Were it completely destroyed, its restoration would be as difficult as the growing of a new arm or leg. That is why diabetes is so hard to cure. The purpose of treatment of diabetes is to provide the diseased or injured islands opportunity for rest. Hence the early diagnosis of the disease is very essential, for, as in many other diseases, rest is the great restorer.

A man with a weakening heart is confined to his bed and is dosed with digitalis, a drug that slows the rate of the pulse. These measures reduce the load off the heart and the rest obtained results often in a return of strength. In the same manner, when the pancreas is weakened by injury or disease, some recovery may be expected if its load can be lightened.

So long as its output of sugar ferment is below the amount required to take care of food sugar, extra unused sugar will sweep with the blood through the tired pancreas and whip it beyond the limit of endurance. Now any organ that is thus pushed to over-exertion becomes exhausted and this is true of the pancreas. So if the constant irritation of excess sugar is continued by injudicious eating, the islands weaken more and more and the diabetes becomes worse and worse. Hence the importance of the early diagnosis and diet in the treatment of this disease.

THE DIET IN DIABETES

By RICHARD O. ROGERS, M. D.

The discovery of insulin by Banting and his co-workers stimulated, in the subject of diabetes, an interest almost without parallel in medicine. A crowning achievement in the physiology of metabolism, the event became immediately of world-wide import to scientific investigators, and something real and tangible was offered hundreds of thousands of unfortunates whose malady previously had defied, except in a limited way, the best that human endeavor was capable of. It was expected that faulty conception of procedure would follow. through publications in the lay press of exaggerated statements regarding the curative powers of insulin, the impression was general that an easy control of diabetes was available and that dietetic restriction was no longer a consideration. We know of course that the introduction of the substance insulin as a therapeutic agent utilized to the fullest extent the knowledge gained by former endeavor and for its application in disease depends upon dietetic control as a first factor.

The pancreas in health elaborates, with the precision of normal vital function, a substance which enables the body to store and me-

tabolize carbohydrates when taken in quantities much in excess of normal need. In the diabetic this function is impaired in varying degrees, sometimes totally destroyed, and the present plan of management seeks to reduce the work normally required of the pancreas and in certain instances supplies the pancreatic hormone itself. The handicap of former dietetic measures alone consisted of an inability, except in the milder types of the disease, to maintain sufficient energy and satisfactory weight by a diet adequately low in carbohydrates to maintain a non-diabetic state. In metabolizing larger amounts of food through the agency of insulin and thus overcoming this handicap, we are imitating a vital function which permits of no haphazard guessing, and an unmeasured diet is as productive of disaster as the indiscriminate use of insulin. There is not the slightest doubt that we possess in insulin a control superior to anything we have had before, but its use is possible only when its glucose utilizing power is accurately balanced by a diet of definite estimate, and without this correlation of the two we are certain of swaying between a situation of incomplete control and the more dangerous condition of hypoglycaemia and insulin shock.

It is obvious then that the most elementary management of diabetes takes into consideration the problem of diet as a first factor, and this pre-supposes some knowledge of food value in calories and the relation of protein, fat and carbohydrate as the component elements of diet. To maintain average weight and furnish the necessary fuel for the usual activities of life the average adult needs a diet varying from 2000 to 4000 of calorie measurement. According to statistics compiled in certain European municipalities, of the total of this requirement carbohydrate furnishes 67%, protein 16%, and fat 17%. This may not be a physiological or a so-called ideal diet, but it represents one which man has arrived at by instinct and in all certainty will continue to be his choice. The percentage of carbohydrate is at once incredibly high, and it is not to be wondered at that the crippled pancreas should fail under the strain. In a series of 100 hospital cases of diabetes a recent investigation developed the fact that but a single patient remained in a non-diabetic state with more than half of this normal carbohydrate intake incorporated in a diet otherwise raised to basal requirement by protein and fat. It becomes evident therefore that the most radical trading of protein, carbohydrate and fat must be effected to produce a diet sufficiently low in total available glucose to be metabolized by the patient with or without insulin.

In this readjustment of the component parts of diet to suit the needs of the diabetic, certain fundamental requirements have to be met. First of all, as an essential to growth and to replace nitrogenous waste a certain protein requirement is necessary, and this is estimated to be one gram of protein per kilogram of body weight in an adult and from one to three in the growing period of life. The rule is flexible in its upper limit in the final diet, and many clinicians permit 1.25 grams per kilogram of weight in an adult. A second fundamental is the supply of adequate fuel for the body

working as a human machine. An adult requires in this respect approximately 30 calories per kilogram of weight at rest and from 40 to 50 calories at ordinary activity. Children require proportionately a much higher calorie requirement, usually about double that of the adult. A part of this fuel requirement is furnished in the more or less fixed protein content of the diet, but this source is small and the remaining and larger part must be supplied as carbohydrate and fat. The addition of these two elements in sufficient quantities to raise the diet to the required fuel value would be a simple process except for the fact that a third and very important fundamental of carbohydrate-fat ratio must be met also. We know that fat is metabolized only in proportion to the amount of glucose burned and that an excess of fat or a deficiency of carbohydrate combustion results in faulty fat metabolism and the accumulation in the blood and tissues of diacetic and oxybutyric acids and acetone which give rise to the condition known as acidosis and finally coma if unchecked. The elimination of acidosis by a proper balance of the ketogenic (fatty acids) and antiketogenic (glucose) materials in a food mixture represents indeed an advance in the control of diabetes hardly second in importance to the discovery of insulin. It has been found that the molecular ratio of fatty acid and glucose is 1.5 to 1, and it is assumed and pretty well borne out in practice that any combination of foodstuffs is safe in which for every 1.5 grams of fatty acid there is available 1 gram of glucose. In applying this test of proper balance in a given food combination one must be familiar of course with certain common estimates. Thus, in terms of fatty acid protein yields a possible 46% and fat 90%. Total available glucose is determined on the basis that carbohydrate yields 100%, protein 58% and fat 10%. Constructing then a formula in which the abreviations are evident, .46 P plus .90 F (total fatty acid) divided by 100 C plus .58 P plus .10 C (available glucose) gives the amount of fatty acid in ratio to one of glucose. Fats may be permitted in a higher proportion when working with low basal diets, and the usual rule is to supply fat in the proportion of 3 grams to 1 of carbohydrate. In the final diet, however, it is important that the accepted fatty-acid-glucose ratio of 1.5 to 1 not be exceeded, and the proportion in grams of fat to carbohydrate is generally not greater than 2 to 1. A still smaller proportion approximates more nearly the diet of the normal individual and is desirable when everything else is considered.

As illustrating the application of fundamental requirements and for the elaboration of other principles of procedure, a concrete case may clarify greatly the situation. It is assumed that the case is uncomplicated diabetes and the subject is an adult. Complications call for special measures. The handling of a juvenile case would not be different except that a larger protein content and a higher calorie requirement are taken into consideration. The case then for consideration is a man of average build and a known diabetic. The recording of a complete clinical history and the search in particular for any existing foci of infection are matters

of understood import. The weight on entrance is recorded and the ideal weight, as determined from the Ideal Build Table of the Life Extension Institute, is noted for future reference. Unless the degree of under-nutrition is marked, the patient is treated as an ambulatory case throughout. The urine is examined and a blood sugar determination made before any treatment is instituted and while the patient is still on his accustomed diet, whether that be restricted or taken without regard to his diabetic state. Borderline cases are given a diet spree and occasionally the well nourished are rendered sugar free or approximately so by a day of starvation. Actual treatment begins with placing the patient on a low basal or maintenance diet. No complicated charts are used and this diet is simply based on entrance weight without other consideration of accuracy. The recorded entrance weight of the case in question is 132 pounds or 60 kilograms (132 divided by 2.2), and the fuel requirement at rest is found to be 1800 calories (60x30), of which the fixed protein content of 60 grams (1 gram for each kilogram of body weight), furnishes 240 calories (60 x4), leaving a balance of calorie requirement (1800-240) of 1560 to be supplied by carbohydrate and fat. The rule in a basal diet is 1 gram of carbohydrate to 3 of fat, and by a simple mathematical calculation it is found that 50 grams of carbohydrate and 150 of fat are necessary. The basal diet then as constructed is P-60, F-150, and CH-50. The patient is kept on this diet for three or four days, and if sugar persists in the urine, enough insulin is administered to cause its disappearance. The amount of food is increased day by day, with or without insulin as the needs of the case may demand, until a diet in size and proportion is attained that is capable of keeping the weight approximately conforming to the ideal and at the same time furnishing sufficient fuel value for normal activity. The ideal weight for this patient (as indicated in the Ideal Build Table) is 154 pounds or 70 kilograms. A conservative final diet would be P-90, F-180, and CH-100, furnishing a total calorie value of 2400 and exhibiting a fatty acid-glucose ratio of 1.2 to 1. This concrete case, as a matter of fact one of our private patients, has built his weight up to 145 pounds on this amount of food, does his regular work and feels well, and maintains consistently a non-diabetic state on about 30 units of insulin a day.

It is well to note here that the matter of a final diet for a diabetic is subject to as many conflicting factors as what constitutes a proper amount of food for a normal individual. Everyone is familiar with the fat man who, presumably in order to reduce his waist line, diets and spends his afternoons at golf and does not succeed by a single pound. The reverse is also familiar of the man who has a gluttonous appetite but remains slender nevertheless. The situation is not changed in the case of the diabetic and what is normal, within reason, for the individual under consideration should rather be the aim of the final diet. In our own experience we have seen the weight of a woman on a diet of average size go from 110 to 145. A diet of the same calorie value caused a well nourished man weighing already 150 to take

on an additional 5 pounds, but another man with a very large bony frame and weighing only 130 pounds gained no weight whatever on a larger diet, even though he remained entirely sugar free on insulin administration. Our aim should be to build up the undernourished and to reduce the obese, and we can certainly accomplish a great deal with both types of cases, but a failure to attain the ideal should not be any more discouraging than our efforts directed in the case of the non-diabetic.

We have thus far dealt with principles of diet construction, in the re-arrangement of protein, fat and carbohydrate aiming at a food combination that would satisfy the normal needs of the body and at the same time be safe in ketogenic-antiketogenic ratio. These are details which must be worked out and supervised by the clinician and the family doctor. The problem of educating the diabetic is often a more tedious undertaking. In about 40% of all cases of diabetes the preserved function of the crippled pancreas is still capable of storing and metabolizing glucose sufficiently in an adjusted diet of required calorie value to satisfy normal need, and it is obvious that these are problems of diet alone. These cases, remaining sugar free on both a low basal and final diet, are tried out on a simple qualitative diet of estimated value, and if a non-diabetic state is still maintained, they are given typewritten diet lists with specific directions as to what liberties are permitted with their food. As illustrating this mild type of diabetes, we are able to recall just recently the severest sort of a carbuncle in an obese diabetic man and in another instance bone disease and persisting sinus in a middle aged woman. Both of these patients went through operative procedures and remained under perfect control with such diet measures alone. There are cases obviously of the mild type where the margin of remaining pancreatic function is less wide and where a diet of weighed measure is necessary for control. We are handling at the present time a case of this kind in a child, aged 4 and weighing 44 pounds, whose urine showed decided amount of sugar and on several occasions a trace of acetone and whose blood sugar was .14%. As evidence of the mild nature of the case clinically the child has never manifested any of the usual symptoms of diabetes excepting waking up rarely at night with thirst and voiding once and showing a subnormal capacity to overcome trifling ills of childhood. Because of the very mild nature of the disease a simple qualitative diet was tried out, but with most irregular success. The parents, exceptionally intelligent people, were taught diet calculation, and the child over a period now of three weeks has shown a trace of sugar only once and no acetone at all on a diet of P-45, F-120 and CH-60.

Pancreatic function in the majority of cases of diabetes is impaired to an extent that the metabolism of an adequate amount of food to meet normal need is impossible even in an adjusted diet. It is in these cases, supplying as it does the pancreatic hormone itself, that insulin has altered the status of the disease altogether. An estimated diet is no longer a considered possibility and in every in-

stance must be one of weighed and definite value. The problem of diet is rendered really more complex, since food combinations intended, as originally, to relieve an overworked pancreas must balance also at all times the glucose utilizing power of a requisite amount of insulin in a given dose.

The prospective insulin patient then, at the same time he is taught how to detect sugar and acetone in his urine, is impressed with the idea that his diabetic state is probably permanent but that its control is easy and a useful life possible provided he is willing to learn. The law of self-preservation asserts itself and with the sense of well being which follows treatment these people become willing students of their malady. The patient at first is given the most elementary list of available food stuffs with their values in grams of protein, carbohydrate and fat and is taught how to construct a meal of prescribed requirement in these three elements of diet. In this he is assisted by the hospital dietitian and any member of the staff who is interested in his case. After a short time the patient calculates his own diet and weighs himself the various articles of food selected for a given meal. The habit of thinking in terms of grams and gram portions is encouraged throughout. Except in unusual cases, the original elementary list of food substances can be substituted by any one of the laboratory manuals of dietetics containing tables of practically all food substances and their values calculated from Bulletin 28 of the U. S. Department of Agriculture. The aptitude with which the average diabetic grasps the principles of food calculations is rather remarkable, and the difficulties of education are far less than we usually anticipate. Obviously now and then we encounter a case where food weighing is about all we can teach and a series of already calculated diets have to be supplied.

The diet in the various complications of diabetes presents special problems varying with the individual case and demands practically always details which must be supervised by the attending doctor or a consultant in diabetes. In coma, actual or impending, the diet for the time being consists simply of supplying glucose or its equivalent as a buffer against over insulin dosage. Once rescued from impending death, the diet is one of low total calorie value in which fat is reduced to a minimum. In the case of a woman thoroughly unconscious for a period of ten hours and totally insensible to external stimuli, a return to consciousness and sensibility was extremely easy with large insulin dosage and glucose, but the complete disappearance of clinical evidence of acidosis was slow and tedious and required a week or ten days of a diet almost free of fat and a daily insulin dosage of 60 units. Restored to the status of uncomplicated diabetes this patient was able to increase her weight to the ideal on a diet of liberal allowance and from 10 to 20 units of insulin. The rule of low fat and carbohydrate-protein maintenance applies in gangrene and any of the commonly associated infections or in inter-current disease,

in all of which the lurking danger is acidosis. The severer complications can now be anticipated and are less frequent since the control of the disease is more adequate with diet and insulin combined.

It is estimated that there are 1,000,000 diabetics in the United States who need treatment. This is probably an exaggeration, but the fact is nevertheless evident that in practically every community there is a certain number of cases of the disease. It cannot be denied that, for most of these people, instruction in a hospital regarding diet calculation and insulin administration is desirable. Some of the cases are problems for a specialist in diabetes. For the majority of diabetics, however, no such advantage is available, and their dependence must be the family doctor. The administration of insulin, now out of the experimental stage, is pretty well safe-guarded by concrete rules, and with a knowledge of the elementary principles of diet construction the treatment of the average diabetic's case should be possible of handling by any practitioner of medicine in a private home. The discouragements which so frequently accompanied former efforts no longer obtain, and results made possible by the discovery of insulin are not short of spectacular. To see these unfortunates in a state of undernutrition, which reflects a mere-shadow of their former selves, transformed into useful individuals makes real indeed a splendid opportunity of service.

THE USE OF INSULIN IN DIABETES

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If I may be pardoned for personal reference, the past year has brought to me more thrills than any other period in my experience in the practice of medicine.

To have seen and had the good fortune to particpiate in the treatment of some of the diabetic children and adults who have come to us, has been a great pleasure. To have seen these children so hungry they would steal any kind of food, with a hunger that was in no way satisfied by taking food, a thirst that could in no way be quenched by water, so weak and emaciated they could hardly stand alone, then to have seen others who had passed this stage and like one who is about to die from cold does shortly before death have a feeling of warmth and is willing to lie down and sleep in the snow, so do these unfortunate individuals as a result of the terrible torture they have undergone, reach the stage where they no longer have a sensation of hunger and thirst but only a desire to sleep. Until about two years ago there was no awakening when one passed into this sleep. To have watched some of these children return to their normal health, vigor and happiness, has indeed furnished enough thrills to satisfy one for many years to come.

This great change in the treatment of diabetes in the past few years has been the result of two distinct lines of endeavor, a better

understanding of diet and the use of insulin.

In the treatment of this disease, we are fortunate in being able to control our results with great accuracy by means of laboratory tests. It is now well established that, if the urine is sugar-free, there is no undue strain put upon the functions which utilize the carbohydrates, and that under these conditions the best chances are offered for progress toward recovery. In some instances there is very marked improvement; in others, the disease is only checked; while in still others it must be admitted a slow but certain downward progress takes place in spite of our best efforts. However, in no case should therapy be neglected. It is only those who have witnessed the pitiful fate of the sufferers from this disease who have thrown all dietary precautions to the winds that realize what torture they may be subjected to. Emaciation, incessant voiding, extreme weakness, furunculosis, perforating ulcers which often become infected, cataract and other complications, make such patients impressive object lessons. Many diabetics boast of how they can maintain sugar in the urine, eat what they desire, and nullify most of the medical ideas concerning their condition. It is perfectly true that there are some instances in which such a rash scheme may be carried out with impunity. Such individuals create a certain degree of skepticism among their fellow sufferers, and sometimes obtain a hearing with the medical profession. However, these patients are prone to be very silent when the results of their carelessness overtake them, and then it is usually too late to atone for past transgressions. It should be most forcibly impressed upon anyone who has diabetes entrusted to his care that the only safe procedure is to keep the urine free from sugar. A case however mild it may appear, whether in the old or in the young, may progress rapidly and every prophylactic measure should be taken to forestall this possibility.

It is now generally admitted that dietetic therapy and the use of insulin are the only means by which we can combat this disease. Drugs, such as urotropin, atropin, arsenic, and morphin are of no value, excepting insulin, the various preparations derived from the endocrine glands, etc., have all received their full share of attention and been found wanting.

The keystone upon which the therapy rests is to render the urine sugar-free. This results in a more efficient utilization of the carbohydrates, which in turn sets aside or diminishes the acidosis and causes a lowering of the blood-sugar level. The success of therapy in these regards demands a great deal of adjustment to the needs of the individual patient and it is easiest to achieve if the three objects of treatment are kept in mind separately: the control of ①Glycosuria; ②Acidosis; ③Blood Sugar.

You have just heard the dietetic treatment very clearly explained by my friend Dr. Rogers. To me has been assigned the subject of insulin. It is not intended to leave the impression that one can in any way separate the two. They are so closely allied, one so dependent on the other that it is difficult indeed to satisfactorily present the subject

of insulin therapy without first briefly dealing with the dietetic side.

All patients treated by us are first thoroughly examined for signs of acute or chronic infections. These are always corrected just as soon as the patient's condition will permit. We next make both blood and urine sugar tests to determine if the condition is one of true diabetes or simply a glycosuria. A routine Wasserman is made on all cases.

A diet containing 30 gms. carbohydrates, 30 gms. Prot., 30 gms. Fats is given to all patients the day after admission except in cases of coma and acidosis, when the fat is omitted, and this is continued until the urine is sugar free and the blood sugar approaches normal. We then decide by various methods, some that are well known and others too complicated for practical use, to arrive at the proper diet this patient should live on, what is known as a maintenance diet. One should base the figures for this diet not necessarily on the patient's present weight, which may be far below or above normal, but arrange a diet for what the patient weighed before they became ill. In case of marked obesity a weight that should be normal is decided upon and the patient is reduced to this.

A very simple rule that we use a great deal, and one that I use in lecturing to my patients, is to give 30 calories for each kilogram body weight; also to give about 1 gm. protein for each kilogram, an equal amount of carbohydrates and the balance in calories, is made up in fats. For example, a man weighs 154 pounds. 1 kilogram equals 2.2 lbs; 1 gm. carb. equals 4 calories; 1 gm. prot. equals 4 calories; 1 gm. fat equals 9 calories; 154 divided by 2.2 equals 70 kilograms, times 30 calories, the amount of food necessary for each kilogram, equals 2100 calories. This patient would be given then 70 gms. protein. 70 gms. carbohydrates, 70 plus 70 equals 140, times 4 equals 560 calories, the total in carbohydrates and protein. 2100 minus 560 equals 1540, the amount to be made up with fats. 1540 divided by 9 equals 171 gms. of fat. The diet then would be: Carb. 70, Prot. 70, Fats 171, Calories 2100. Allowing 58% of protein to be changed to carbohydrates and 10% of fats the same, the ratio of ketogenic to antiketogenic food is well within safe limits. On such a diet the patient has 70 gms. of actual carbohydrate, but has 128 gms. of available carbohydrate.

If the patient is still sugar-free on such a diet and blood sugar remains normal, there is no indication whatever for the use of insulin. If, however, one is put on this maintenance diet and the carbohydrates may have been reduced to less than the 70 gms shown you in the chart, and there is still sugar in the urine, one would have distinct indication for the use of insulin, and in this case the finding of the amount of insulin needed is as simple to determine as was the caloric needs of the patient, which was shown on the chart.

Now in studying the second chart you will note the distribution of foods in the normal individual. First take the proteins, you will note that 58% of all of this goes to dextrose or lactic acid, part of it going to repair tissue proteins, the remainder to ammonia which com-

bines with CO_2 and is eliminated as urea.

All of the carbohydrate is utilized as such, being converted into dextrose and lactic acid, this to an unknown substance, part of which is shown in the chart as combining with the diacetic acid of fat digestion and being eliminated as carbon dioxide and water.

The fats you will see are broken into glycerol and fatty acids; 10% of this goes into lactic acid, the remainder to diacetic acid which combines with the unknown substance in carbohydrate digestion and is eliminated as CO_2 and H_2O.

To arrive at the actual amount of carbohydrates, one would count all the carbohydrates given, 58% of the protein and 10% of the fats. This having been determined, one would next determine the amount of sugar eliminated each 24 hours in the urine, which is a simple test to make. In most cases as long as the patient remains on a fixed amount of carbohydrates daily, the output of urine sugar will remain fairly constant. Enough insulin is given each day to burn up the sugar that is wasted. This also is fairly easy to determine, because it comes in units and one unit will burn up from 1½ to 2 gms. of carbohydrate. In many cases the rest obtained by the pancreas will enable this gland to regain some of its ability to make insulin.

It is not at all unusual to send some of these patients home, using it twice a day, to have them return in a few months using only a small dose once a day.

We have been impressed by statements made by a great many of the patients referred to us, that their physicians told them that after taking insulin for a time they would be cured of the disease.

I hope through the series of papers you have listened to tonight you will readily see and understand that insulin is not a cure. It is, however, in our experience a specific remedy for diabetes, which has already saved many lives and has alleviated much suffering from the disease. Its effects are only temporary, leaving the fundamental condition of the disease unchanged. The discoverer of insulin, Dr. Banting, has always been very careful not to make the claim that insulin cures diabetes. The manufacturers, Eli Lilly & Co., in the advertising matter on insulin, are likewise careful not to make this extravagant claim. Never before has a great medical discovery been given to the world with more unselfishness on the part of the discoverer, or by more ethical manufacturers. The most that can be said for insulin is that it is a specific remedy for diabetes which restores the metabolism to normal as long as the treatment is continued. In some cases the beneficial effects may continue for a short period after discontinuing the treatment. Sooner or later the patients always return to the condition preceding the treatment unless it is resumed.

A great deal of harm can arise from careless statements in the press to the effect that diet can be neglected during insulin treatment. The publications of all the men who have subjected insulin to scientific study emphasize the fact that accurate control of the diet is more necessary with insulin than without it. The reason for this is twofold. A given dose of insulin will cause the proper utilization of a fairly

definite amount of food. If more food is taken than the dose of insulin provides for, the patient will have sugar in the urine again, so that some of the good effects of the treatment will have been nullified. On the other hand, an overdose of insulin may kill the patient by reducing the sugar of the blood below that which is necessary for life. This means that the diet of the patient must be measured so as to insure that there will be the right amount of food taken to balance the dose of insulin given. The patient who takes insulin is given a liberal diet, but the diet must be accurately measured, and the patient must take all that is prescribed.

Estimates of the number of sufferers from diabetes in America vary from half a million to a million. Many of these people have the disease in a very mild form, so that it is detected accidentally in life insurance examinations. Such people may go for years before serious consequences of the disease become apparent. Others have a mild form which responds readily to very moderate reduction of the diet. These people do not need insulin unless it be at times when it is necessary to tide them over emergencies, such as surgical operations, infectious diseases, etc. From 75 to 90 per cent of all cases of diabetes can be controlled satisfactorily by proper dieting without impairing the patient's efficiency and without undue suffering from restriction of food. For the ten to twenty per cent who have the disease in a more severe form, insulin is a God-send but is not a cure, and accurate control of the diet must still be maintained.

SOME OF OUR PROBLEMS

Read Before the Barbour-Randolph-Tucker County Medical Society, April 18, 1924.

By J. C. IRONS, M. D.
Dartmoor, W. Va.

At the risk of being classed as a crank, I am fully convinced that we, as a profession, are not adequately meeting our tasks. We are coming more and more to realize the fact that, perhaps while less remunerative, yet we can be of greater service to the people in preventive measures, rather than administering drugs or performing surgery. In prevention we mean not only in the means of warding off diseases, but the prevention of false and dangerous methods.

So far as I am able to ascertain, our profession is the only one that has done anything worth while toward prevention, either in legislation, discovery or treatment. All health measures, all scientific discovery, all great surgical operations, are rightly credited to the medical profession, yet there is much to accomplish—many dangers threaten humanity.

Our profession is one of the oldest on record, and it has always been progressive. We have never been satisfied with present attainments, but have ever been seeking the better means of treating and preventing diseases. Others have made loud claims of efficiency, with no lasting good results. These claims are constantly propagated by lip and press, and the public is being dangerously deceived. These

false claims have always existed in some form, but soon fail and only exist in history, with nothing of good to perpetuate their memory.

In the language of Dr. Galliger in The American Medical Association Bulletin: "A review of the history of the medical profession will show that the problem of the quacks and the cults is as old as the profession itself. There has sprung up from time to time, groups who professed to prolong life and alleviate human suffering, by every means imaginable; but the outstanding feature is, and history will bear indisputable evidence of this, that not one has survived any considerable period of time. The regular medical profession is the only group who offer themselves for the prevention of disease and the amelioration of suffering and prolongation of life, that has stood the test of time. It can point to an almost unbroken line of succession, from the mythical Aescalapius to the present day. There is a logical reason for this, in the fact that we have always based our conclusions upon well established facts of science combined with actual clinical experience, while with the various other cults, their seeming success, for a season, wholly depends upon the gullibility of the public."

The medical profession has always been broad enough to accept and appropriate anything good in any creed or cult, that had any real merit. As stated before, most of the cults exist only in history, but the strange fact remains that no sooner does one fad wane till another, equally absurd, but possibly more alluring in promise, springs up.

We can recall some of the preposterous cults that have come and gone since this country was occupied by our forefathers. History informs us that in certain sections of this country the witch doctor, the one of uncanny power, swayed an almost controlling influence so that no important deed could be undertaken unless the sanction of the witch was first secured. Now who, except the most ignorant and illiterate, has any faith in such a pretention?

Another class, closely allied to the witch doctor, was the Incantationist, or those who claimed to be able to accomplish wonderful feats by the use of certain words, or quoting certain passages of scripture. The nearest approach to this cult I have recently known was the ability to stop hemorrhage, so claimed, by the use of words. I have no doubt that the fact that most hemorrhages are self-limited and cease whether anything is done, gives some seeming reason for the faith in this deception.

A few years ago the Hydropath was lauded as the greatest benefactor to the human race, but except as a helpful temporary measure, in conjunction with other means, we scarcely ever hear it mentioned as a specialty. Hydrotherapy has its place in medical treatment of disease.

About 1825, Homeopathy was lauded as one of the greatest sciences. Its fundamental principle was embraced in the aphorism "Similia Similibus Curantus"—"like cures like" — and the further strange claim that the greater the division of matter, the greater its potency.

Closely on the heels of this cult came the School of Electicism. They used only herbs, refusing minerals of all classes, and had a belief in scientific medicine for each disease or class of diseases. So far as I am able to judge, since the law required the same examination for those two classes that is demanded of the regular physician, there was no reason for their existence as a short cut to practice, and all that was proven good in them has been absorbed in general medicine, and these scarcely exist as a separate cult.

Following these, what we may class as almost extinct cults, we now have the Osteopath, Chiropractor and Christian Scientist, who are making loud claims as to the wonderful cures they have secured. So far as I am able to judge, the Osteopathic and Chiropractic theories are very closely allied, both in theory and practice. The Osteopath claims that all disease is the result of some displacement or defect in the bones, especially at points where such conditions cause pressure, while the chiropractor claims that all disease is the result of displaced, or pressure on, nerves. Both rely upon rubbing along the spine, or over the affected region. It must not be forgotten that scientic massage has long been accepted as a means of relieving suffering, when properly applied, but I fail to see how any thinking person can accept the theory that the performance of these cults can be of any good in treating the so-called zymotic or germal diseases, or where they have any place in surgical diseases. If our legislative bodies would require of these cults the same preparation in knowledge of anatomy, physiology, and disease that they do of us, very soon they would be only in name. If there is any good in them we would appreciate it—and thus this dangerous short cut to an easy livelihood would be removed.

As to the Christian Scientist—this is, as I judge it, only the capitalization of the effect of mind over matter. Solomon, the Wise Man, had a true conception of this truth in a spiritual sense, when he said, "As a man thinketh in his heart, so is he," but I am yet to be convinced that this is or can be literally true in a physical sense. We do know that the mind has much to do with disease, or the endurance of the suffering, and can be of great assistance or hindrance in the use of curative measures. It is much more hopeful to treat an optimist than a pessimist—but we know by sad experience that our greatest desires and fondest expectations too often prove unavailing and disappointing.

These historical facts and present conditions should aid us in arriving at some practical conclusions. We have had cults, we now have them, and doubtless will have them in the future. The people seem to like to be humbugged. They are prone to accept the new and readily discard the old, however good it may have been. I am convinced that an educational campaign is the most promising means of correcting these undesirable conditions. We have not availed ourselves of the opportunities at hand. These cults are constantly before the public with their claims of cures, and the country is full of easy victims to be brought within their alluring powers.

The success of these cults, proprietary and patent medicine dispensers, may give us a practical lesson of the value of continuous propaganda. If we hope to prevent these methods and means from being accepted, and the consequent dangers incurred, the public must be educated along proper lines.

Biennially we are called upon to use every lawful means to secure efficient health laws and defeat improper or unjust legislation pertaining to the practice of medicine, or the healing art. I was reared on the farm, and early learned that the best method of destroying an undesirable bush or plant, was to dig it up "root and branch," and not to simply cut it off. The cutting off principle has been our method of dealing with these perturbing cults. Why not deal with them fundamentally? We should teach the people the full truth—let them know that we are not legislating, or seeking measures for our selfish purposes, as they are led to believe, but for their real good; that we are opposing these cults, not because they may seem to be operating against us, but simply because they deceive and defraud the public, and endanger life by false teaching and absurd treatment.

In my judgment we can accomplish this desire by community industrial work. We are individually stopped from taking such steps to reach the public through the press or from the rostrum by means of our close adherence to medical ethics. No one feels at liberty to take an active part in such publicity work for fear he may be misjudged. To obviate this deterrent, can we not, and should we not, as a society, appoint committees to act collectively or authoritatively as we could not individually?

I would suggest that a public committee be appointed, whose duties would be to supply the local papers with educational matters on medical and health measures, diseases, their causes, and methods of scientific treatment. I believe our papers would willingly cooperate with us. Then we should have a speaking committee, whose duty would be to address public gatherings, schools, churches, etc., and give facts. In this, I believe, the teachers and ministers would be potent helpers.

When the public is educated I believe we could then easily secure a uniform medical practice law that would require all to obtain an equal educational qualification, and pass the same strict examination before attempting to deal with the dearest thing we possess—life and health.

Destroy these short cuts to an easy livelihood and you have removed the greatest incentive to pursue these frauds. If there is anything good in these cults which we have not accepted, we can do as we always have done, appropriate the good and reject the false.

The question now is, will we act in a concerted manner? Prompt action is demanded.

ADDRESS OF CLYDE B. JOHNSON

At Joint Meeting of Medical Societies of Cabell, Boone and Kanawha Counties, Charleston, April 14, 1924

Gentlemen:

I am honored beyond my deserts by this invitation to address the physicians of Southern West Vir-

ginia, and I have wondered what I might say to either interest or entertain—of course I cannot hope to instruct. When I have attended medical associations in the past, it has always been to listen and learn, for the subject of human healing has always been to me of absorbing interest.

After telling your Chairman that I would discuss the medical profession from a layman's viewpoint, I was surprised to find what a trite and old subject I had selected, for throughout all history men who knew nothing about the science of medicine have discussed it and criticised it with great freedom. Even several centuries before Christ was born, you remember that Ezra, the great scribe who wrote the Chronicles, took a crack at the doctors. He tells us that good old King Asa of Judah became diseased in his feet, "until his disease was exceeding great; yet in his disease he sought not to the Lord, but to the physicians. And Asa slept with his fathers.***"

Then centuries later the great Scotch poet, Bobby Burns, discussed physicians somewhat in "Death and Doctor Hornbook."

Most of you will remember the keen wit with which he wrote of his friend, Doctor Hornbook. Bobby had an interview with Death, at a time when the "clachan yill" had softened him to perfect understanding, when death says of himself:

"Sax thousan' years are well nigh fled,
Since I was to the butcherin' bred,
And many a plan in vain's been laid,
To stop or scar't me,
'Till one Hornbook's ta'en up the trade
An', faith, he'll waur me."

And what a champion long distance diagnostician he must have been:

"E'en them he canna get attended,
Altho' their face he ne'er had kend it,
Just spit in a kail-blade, and send it,
As soon as he smells 't,
Baith their disease, and what will mend it,
At once he tells 't."

You will remember how Death, after complaining of how Hornbook's skill foiled his darts, then comes back with keen sarcasm and says:

"Where I kill'd ane a fair strae death,
By loss o' blood or want of breath,
This night I'm free to tak my aith,
That Hornbook's skill
Has clad a score i' their last claith,
By drap and pill."

And he proceeds to give concrete examples, first about the wife of the honest Wabster, and then says:

"A countra Laird had ta'en the batts,
Or some curmurring in his guts,
His only son for Hornbook sets,
And pays him well.
The lad, for twa guid gimmer-pets,
Was Laird himsel."

"A bonie-lass, ye kenn'd her name,
Some ill-brewn drink had hov'd her wame;
She trusts hersel, to hide the shame,
In Hornbook's care;
Horn sent her aff to her lang hame,
To hide it there."

And closes with:

"That's just a swatch o' Hornbook's way;
Thus goes he on from day to day,
Thus does he poison, kill, an' slay
An's weel pay'd for 't;
Yet stops me o' my lawfu prey,
Wi' his damn'd dirt."

I am reminded of another great Scotchman, who discusses the practice of medicine from the standpoint of a layman. Do you remember Ian McClaren in "Beside the Bonny Brierbush," as he paints a picture of the fine old country doctor, William McClure? In all of literature, I think there is no finer character portrayed than this sweet, faithful, old country doctor, who grew up with and gave his life to the Scotch peasants of a country community. It brings tears to my

eyes every time I read it, and particularly on that occasion when the doctor was old, and when he and Drumsheugh, the landlord, spent the night saving the life of Sandy McCullough, when he was at death's door with typhoid fever.

They spent the entire night when the patient lay at the door of the Beyond, wrapping him constantly in wet sheets to keep down the fever until at daylight the patient sunk into a quiet slumber, and the practiced eye of the old Doctor saw that the crisis was passed. They left the patient's humble home just as the sun was beginning to peep over the Scotch hills, and there in the quiet of the morning old Doctor McClure, rejoicing over having saved the life of his friend, danced the Highland Fling.

So you see many laymen have discussed doctors in many different moods, from the critical, through the facetious to the highlands of admiration, and why shouldn't I follow in such distinguished footsteps?

When I talk to you about the medical profession from the layman's viewpoint, you know, of course, that I do not mean to attempt to discuss the great profession from a technical or scientific standpoint—that must always be the service of the trained physician and investigator. What I do mean, however, is to discuss the medical profession as it bears a direct relation to national defense and national health and happiness.

No obligation of the government is greater than the duty of providing at all times for an adequate national defense, and it is one of the very few powers originally committed to the Federal Government by the Constitution of the United States. Who can doubt that the securing of a sufficient number of trained and competent physicians and surgeons to adequately care for a great army in time of war is just as important as the training of soldiers and their officers, and the manufacture of arms, munitions, and battleships? The great ideal of world peace, to which America by the very genius of its people is committed, in no sense relieves the government of the duty of national preparedness and readiness, as one of the best insurance policies against ever being forced into a war for the defense of the nation's life. And the modern conception of the American lover of peace is that the best protection lies not in great permanent standing armies, but in a citizenship which carries in its peace activities a trained body of men subject to the instant call of their country. Trained physicians and surgeons are an essential part of such a great citizen army as America is developing. We discovered when we entered the World War how critical became the army surgeon question, and when the thousands of patriotic physicians in America rushed to service at the call of the country in 1917 and 1918, the nation not only did not have enough for that great service, but felt keenly the shortage of physicians at home, particularly when the devastating influenza epidemic of the latter year swept over the land.

In view of the importance of the physician and surgeon, not only as a part of a war machine, when one must be hastily constructed, but as an important factor in the development of

health and strength in our population which in its last analysis is the basis of national life, will you permit me to say that from the viewpoint of at least one layman it looks like legislation developing, encourging, and regulating the great profession of medicine should be entrusted to the Federal Government. I belong to that political school which would not entrench upon the rights of the states, nor place in the hands of the Federal Government a single power that is not essential to our national growth and development, but in view of the national character of the potential army surgeon, and keenly alive to the danger of forty-eight possible standards of professional education and qualification that might be provided by the States of the Union, I am profoundly convinced that it is just as important to commit this additional power to the Federal Government, as I am that it was necessary that Congress should control foreign relations, questions of war and peace, interstate commerce, and the issuance of money.

As a citizen I am glad to note the high standard of training required in most of the States for admission to practice the science of medicine and the art of healing. It constitutes the greatest protection to the citizen who requires professional service. But when we recall that the present standard in most of the States of the Union, including our own, requires nine years of a young man's life after he leaves high school to be spent in educational and professional training, the great difficulty becomes immediately manifest of keeping the entrants to our standard medical colleges plentiful enough to meet the country's requirements. I am not complaining that the standard is too high, for it is not, but it takes so many years of a young man's active life to prepare for the practice of medicine that it discourages many who have inclination and natural gifts, from entering upon the study of medicine. I have sometimes thought that as the government is so vitally interested in those who minister to the public health, and as it exercises the power to call them to its service in time of need, the government should, under proper restrictions as to those who enter, defray a portion of the great expense of educating physicians. I confess that my own ideas along this line are not well matured, and in passing I merely drop this thought for your consideration.

I have always believed that the law should exercise a jealous care as to those who are permitted to practice the healing art. This is not primarily or perhaps in any sense to protect those who practice medicine but out of a proper regard for the safety of men and women who suffer and must have professional help. There is nothing which should interest government so much as public health for it is the greatest asset of the nation, and the law should be such as to guarantee that all men and women who are permitted to hold themselves out as public healers should be qualified by the highest and best standards of modern medical science to render assistance to the sick and suffering. A healer's sign upon an office window should be a sufficient guarantee, even to the stranger passing through, that there is a man or a woman who can safely be trusted to render expert profession-

al service. What sincere man can deny the necessity of this fundamental requirement when he considers the benefits which humanity has received from the sacrifices and the discoveries of modern medicine?

None will deny that human life is the greatest fact with which we have dealt throughout the history of the world, and to show just how rich is the gift rational medicine has given humanity, and how bright is its promise for the future, may I take a few moments to pass in swift review some things which have happened within the range of written history?

It may be true that we do not know exactly how the ancients computed time, or just what period is meant by the Hebrew word which our English Bible translates "year," but one thing is certain—that in the days of the patriarchs when the race was young upon the earth, men and women lived to a great age. Bible students, scientists and antiquarians agree that in the Spring season of the race, while yet it lay in its cradle, Asia, the average human life was well up to a century, and lives of three hundred years duration were so common as not to occasion special comment. Do you say these facts are old and musty? Yes, that is true, but they hold a keener interest for every living human being, and for countless generations yet unborn, than any other facts of history, whether old or new. These musty old facts prove that man fresh from the hand of the Creator was formed for long life. They demonstrate beyond question that when God formed man of the dust of the earth, and breathed into his nostrils the breath of life, no matter how or when, He intended that he should live upon this earth a long time.

Let us turn back the scroll of the centuries, examine it under the spotlight of present day understanding and see what has happened to the sons of men.

In that vast stretch of years between Methusaleh and Shakespere the race developed from savage crudity to a highly cultured civilization. Great monarchies and populous cities grew and crumbled. Out of the dead ashes of every passing civilization grew a new and mightier life.

This stretch of time saw the greatness of Egypt, Babylon and Persia; the rearing of those massive piles of masonry on the banks of the Nile that will withstand the ravages of time to its end; the founding of the Jewish religion, and the magnificence of the Empire of David and Solomon; the birth and perfection of the three jewels of Greece—art, literature and democracy; they saw the white sails of the triremes of Phoenicia that blazed a trail past the Pillars of Hercules and pointed the way to a new world; and the foundations of Christianity, a new religion of peace and love, laid amid the beams and mortar of the Roman Empire. The ears of these centuries heard the frenzied zeal of Peter the Hermit preaching a crusade, and their eyes beheld the scorched and blackened trail of three great religious wars stretching across the face of Europe, dotted by the bleaching skeletons of misguided devotees. They saw a dreamer of Genoa sail into the West and bring back a new world and lay it in the lap of mankind.

This stretch of centuries also carries the straggling and blood-stained foot-prints of humanity's struggle for political liberty—that world old struggle which carried westward the course of the Empire until in final triumph came the great republic of the Western World, where the dream of liberty and equality for all, Jew and Gentile alike, is at last realized.

What a wonderful history! To a visitor from another planet the story of the great changes and development from Methusaleh to Shakespere could not but appear fanciful, but it was ever so that truth is stranger than fiction.

But, will you come with me for a moment's glance at a different side of this picture? Can you deny that the biggest fact in human history is human life itself?

Looking down from the star that may now be his home, Methusaleh had seen the average human life dwindle from a century to a scant 25 years in these forty centuries. His sons had done everything else worth doing, but had failed to learn how to live. Of what value is great achievement and glorious history if life itself is to disappear?

When we study the conditions under which the human family lived during the centuries we have just been reviewing, it is not remarkable that the race should have become enervated, and its span of life shortened to less than a quarter of its original length. The only wonder is that the species was not entirely exterminated. It certainly would have been but for the great natural vigor and tenacity of life planted in the parents of the race by a wise Creator. The causes that so nearly blotted human life from the globe are too many to enumerate here. Their name is legion, but let us hurriedly glance at a few of the principal ones.

The greatest handicap under which humanity struggled through the early centuries of history was the superstition and mystery which surrounded the treatment of human diseases. Ignorant and cruel systems of religion taught that disease was a direct manifestation of the displeasure of Deity for some sin committed, and that relief could be had only through the ministrations of the priesthood. Instead of recognizing the natural laws under which the human body either develops or decays, they taught a blind association between medicine and priestcraft. This, of course, left man the easy prey of disease, paralyzed professional investigation and prevented the development of the great natural science of medicine.

Another cause which largely contributed to the shortening of human life was the destructive wars which almost constantly raged throughout the Old World. These not only formed an excellent medium for the transmission and spread of disease, but levied a frightful toll upon the world's strongest manhood, which had a tedency to leave but few vigorous men to perpetuate the race. These responsibilities fell to the lot of the weaker and less fit, who had not been chosen for military service. It is not necessary that one should be a student of Darwin to be able to tell the effect of such parenthood upon the human race. Historians have estimated that the world's wars from Alexander the Great to Napoleon the First destroyed two billions of men in the

prime of manhood, and stupendous as this loss of life seems to us, the resultant loss in the productive energy of the race was infinitely greater.

And, again, when we turn to the record of the ravages of deadly, contagious and infectious diseases that swept over the earth in wave after wave, leaving behind their millions dead like flies, and recall the fact that nothing was known of how to check or prevent these scourges, but that they were permitted to follow their deadly course until the disease died out from natural causes or from lack of victims, it seems little less than a miracle that any human being escaped to tell the story. The only possible explanation why any of the race survived lies in the slowness of travel and difficulty in transportation. Railroads, steamships and a rapid world-wide mail service in those days would have meant the absolute extinction of the race.

The oldest known of the great enemies of humanity is Leprosy. Its origin is shrouded in prehistoric times, but throughout all human history it has destroyed the lives of millions annually in Asia, Europe and Northern Africa. Regarded by the ancients as absolutely incurable, Leprosy enjoys the distinction of being the first disease protected against by segregation and quarantine.

The Bubonic Plague, also known as the Black Death, originated in China before the Christian Era, and is said by early historians to have caused the death of six-tenths of the entire population of Asia before it made its first appearance in Europe at Constantinople, about the middle of the sixth century A. D. This fatal disease has been called "The Poor's Plague," from the fact that it always first attacked the half-starved masses who congregated in the slums of great cities. To illustrate, about the year 300 it attacked the City of Bombay and at its close four hundred and fifty thousand of the population of that city were gone. Upon its first appearance in Constantinople it is said to have caused the death of ten thousand persons daily. About 1352 the Bubonic Plague spread through the whole of Europe and destroyed one-fourth of the entire population, and out of two million inhabitants of Norway but three hundred thousand survived. Pope Clement VI estimated that the mortality in Europe during that epidemic period was forty millions of souls.

Asiatic Cholera, another of humanity's great scourges, originated in the East Indies many centuries before the birth of Christ, and had millions of deaths to its credit in Asia before its migraton to Europe. It is one of the most deadly and infectious diseases known to humanity and kills its victims in from one to fifteen hours after they are stricken. In some of its attacks upon the cities of Southern Europe half of the population have died.

Perhaps the most deadly of all human diseases was the dread smallpox. No historian knows when or where it originated, but it is known to have devastated Athens as early as 430 B. C. and from that time forward it swept at intervals over the earth, levying a toll on human life that staggered the world and is almost incredible. In one year, 1770, more than three millions of persons died from this dis-

ease in India alone, and in Russia during a portion of the eighteenth century the mortality from smallpox in some places reached eighty percent of the population. Credible estimates place the deaths in Russia alone from this disease at ten million, five hundred thousand in forty years. In 1507, fifteen years after the discovery by Columbus, smallpox was introduced into America. In 1517 practically the entire population of Santo Domingo died from it and it is said to have destroyed three millions and a half of lives in Mexico in the year 1520. Even within the memory of living men, the death rate from smallpox in our own country was seventy-five percent of those afflicted with the disease.

Then the Great White Plague, tuberculosis, commonly called consumption, during all of these past centuries swept unresisted over the earth. We do not know how old this dread disease may be, but we do know that it was in full and fatal activity four hundred and sixty years before Christ was born, when its symptoms were accurately described by the great Hippocrates, and from that until the dawn of light in medicine, tuberculosis, unresisted, decimated the human race and killed its millions every year.

Then think of the other millions swept into their graves annually through all that march of centuries by Typhoid Fever, Spotted Fever, the great scourge of Yellow Fever, the deadly child-killer, Diphtheria, and many, many other diseases, none of which were understood by physicians or treated scientifically, and is it not indeed to be wondered at that human life on our planet did not altogether disappear?

But old Methusaleh in this year 1924, as he again looks down upon his sons, notes with pleasure that the sands in the hour glass have stopped their downward course and are in fact running the other way. He smiles to note that in the last two hundred years the average human life instead of being shortened has lengthened, and has climbed back upward more than thirty years, eight of which have been within the last four decades.

Why is this true? Can it be possible for man to add to his allotted years? Can mankind raise himself by his own bootstraps, and by his own effort arrest the processes of decay and death which for forty centuries pointed unerringly to the extinction of human life?

Let us pass in swift review what the steps are by which this change has been wrought. The first was the greatest step of all, for it blazed the way and made possible all of the other great advances. When Hippocrates, the father of medicine, divorced medicine and priestcraft, and proclaimed in thunderous tones that have rung through all the intervening centuries, that the treatment of human disease is a natural science, and has no connection whatever with a system of religion, he performed the greatest material service to humanity that the world has ever known. He founded the great school of rational medicine which has revolutionized the world. He struck the shackles of bigotry and superstition from the arms of original investigation.

The next great step was the discovery of the circulation of the blood by Dr. Harvey in 1628. Think of the entire world lying in ignorance of this elementary fact dur-

ing all of its history up to that time! This discovery by Harvey was the key which unlocked the mystery of all the great functions of the human body. After this, investigators sprang up everywhere and discoveries of the greatest value to humanity came in rapid succession.

Then came the discovery by a great German physician of bacilli, and the fact that many diseases are caused by a germ which constitutes an independent life. This marked an epoch in the control of human disease, for when the little organism could be discovered which caused the trouble, it was but a question of time when the indefatigable physician would find a way to destroy it.

A direct outgrowth of the discovery of disease germs is our present excellent system of sanitation and quarantine maintained throughout the civilized world, the effect of which has been to paralyze the great demons of contagion and drive some of them from the earth entirely.

Another great discovery in the interest of human life was that of vaccination, for which credit is due to Dr. Edward Jenner, a great English physician who announced his discovery in 1788. Today the general application of this great discovery has practically driven the scourge of smallpox out of existence. You no longer see the blanched cheek when smallpox is mentioned. It is almost unknown, and people are not afraid of it if it does occur, for practically no one dies any more from smallpox. The effect of vaccination can be ascertained only by reference to the countries where it is made compulsory by law. Take Sweden for example. Prior to 1800 her death rate from smallpox was 2049 per million, and in 1899 after one hundred years of vaccination, the death rate had fallen to one per million. In 1900, the health department of the city of Berlin reported that there were no cases of smallpox in the then German Empire, and in England, Scotland and Wales vaccination reduced the annual cases of smallpox from three hundred thousand in 1795 to four isolated cases in 1901, and not a single death.

The scourge of yellow fever, formerly so fatal and hard to control, has practically disappeared. This victory is due to the discovery of the fact that the disease was transmitted through the agency of mosquitoes. This discovery is due largely to the heroism of Dr. Walter Reed, late surgeon of the United States Army. Scientific warfare against the yellow fever mosquito has put the disease under absolute control and epidemics are unknown.

The hand of diphtheria has also been stayed by medical triumph. Naturally one of the most malignant and fatal diseases known to childhood, it annually destroyed the lives of fifteen millions in Europe and America. By the discovery of antitoxin, proven to be a specific curative, the death rate has been reduced by more than ninety percent, and Dr. William Welch of Johns Hopkins University some years ago advanced the belief that within a few generations, if the use of antitoxin is made general, diphtheria as well as smallpox, will entirely disappear.

The deadly typhoid fever is under almost complete control, and if the use of the anti-typhoid serum

were made compulsory and universal, many physicians believe that the race would become immune to the typhoid bacilli. The advance of medical science in protecting against typhoid is shown in the records of our last two wars. In the war with Spain typhoid fever killed one soldier out of each 71, while in the World War it killed only one out of 20,000.

While the efforts of the world's greatest physicians have not yet completely and definitely conquered the scourges of spotted fever, cancer and consumption, they have made great strides in that direction, and the annual deaths from these diseases are but a small percentage of what they once were. The best medical intellects in the world are engaged in the search for specific cures for these diseases, and in the light of what has been accomplished may we not with confidence predict that the next few years will crown their efforts with success, and that humanity will see the last great destroyer that preyed upon its life bound completely hand and foot by the chains of medical science?

And the surgeon has contributed to the lengthening of human life only a little less than the physician. Beginning with the discoveries of chloroform and ether, truly fingers of God, and the introduction by the great Lister of antiseptic surgery, the triumphs of the surgeon tax human credulity. Time, however, does not permit them to be enumerated.

I have given you but a few of the great accomplishments in the realm of medicine. Just a few hints of what the world owes to its great humanity-loving physicians. Is it to be wondered at that the effect of these great discoveries has been to arrest the decay of the race; teach it the better how to live, and start its span of life on the upward climb back toward what the Great God intended it to be?

Now that man has turned his intellect and efforts to the solution of this greatest of all problems—how to live—does it not open up untold vistas and possibilities of triumph, of new discoveries, and of the mastery of God given mind over the locked mysteries of mere matter? How transcendent the golden promise of lengthened life! What might not the world have gained from twenty years more of active life added to William Shakespere and Isaac Newton? The loss from Diamond's overturned candle might not have been irreparable.

In view of the effect of forty centuries of ignorance of these great discoveries upon the length of life, is it entirely visionary to hope that forty centuries of their use and observance may restore the strength, vitality and mental power of man until he should again live out the century or more of active life that he did when fresh from the hand of his Maker?

Every discovery and triumph that has wrought this miracle and taught humanity the greatest of all lessons—how to live—has been the direct gift of medical science, and it is only rational self-preservation to keep that science functioning along the highest standards attainable.

"Know then thyself! Presume not God to scan:
The proper study of mankind is man."

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, Huntington - Editor-in-Chief

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C. A. RAY, Charleston
HARRY M. HALL, Wheeling
} Associate Editors

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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THE WHEELING MEETING

The Fifty-Seventh Annual Session of the State Association has passed into history. Those members who failed to attend the meeting in Wheeling missed a great treat, for the Ohio County members exerted themselves to the utmost to make it a success in every way. The problem of housing the various sections and the manufacturers' exhibits all under one roof was solved by holding the meetings in the Market Auditorium. The convenience of this was thoroughly appreciated by all of the members present.

The scientific program was all it promised to be, the papers and addresses being of an exceptionally high order of merit in every respect. Those members who were in regular attendance at the scientific sessions could not but feel that they had attended a most excellent postgraduate course, covering all of the subjects of general medicine and surgery. Each year the scientific programs have gotten better, and

it can be truthfully said that this was the best meeting of all in this respect.

Our Ohio County brethren did themselves proud, as we knew they would, in the matter of entertaining for the visiting physicians and their wives. The banquet on Wednesday night was held in the main dining room of the Scottish Rite Cathedral, and had the largest attendance of any function of this type during the nineteen years that your Editor has been attending the meetings. The reception and dance at the Fort Henry Club on Thursday night was a fitting climax to the social side of the annual gathering.

The House of Delegates took a very important step in voting to have a full time executive or business secretary for the Association beginning with 1925. It is the most important step forward in the Association's affairs, in my opinion, since the immortal sixteen physicians met in Wheeling fifty-seven years ago, to plan for the organization of a State Medical Association for West Virginia. The possibilites of this organization of ours in the way of medical progress are unlimited, and the fact that we shall, from 1925 on, have someone continually "on the job," looking after the affairs of the Association, will bring all of the physicians throughout the State into closer harmony and provide a co-operation which has not been before.

The editorial policies of the Journal will continue as in the past—that of having our Journal one for our members. There was a great demand upon the part of those with whom your Editor came in contact, for a greater development of the State News section. This department has always been one of the important ones of our Journal, in the opinion of the Editor, but it has never been so "big" as he would hope. A plan has been brought about by which more state news can be secured. It is to be hoped that the men will co-operate with us. In this connection we will say that the Council selected as Associate Editors, Doctors Walter E. Vest, of Huntington, C. A. Ray, of Charleston, and Harry M. Hall, of Wheeling, to assist in the editing of the scientific portion of the Journal. I feel sure that I can depend upon these associates to help make the Journal nearer what you would have it be. Let us all pull together for the Association's welfare, and make this coming year the best one we have ever had.

A CONVICTION

In another section of the Journal is a report of some remarks of the presiding judge, made at the time of passing sentence upon a Chiropractor who had been convicted of practicing medicine illegally. This is a clipping from one of the Morgantown papers.

The arrest, trial and conviction of this individual came as a grand finale to an orgy of villification of the medical profession in Monongalia County by the local Chiropractors. The advertisements gotten out and circulated by them in Morgantown were particularly scurrilous and vicious. Though probably not more so than in other localities.

The medical profession in West Virginia owes a debt of great gratitude to Dr. C. H. Maxwell, one of the Councillors of the State Asso-

ciation and President of the Monongalia Medical Society, for his prompt and fearless method of combatting the propaganda of the Chiropractors.

An interesting feature of this trial is the fact that no witnesses were used other than the Chiropractors themselves, the prosecuting attorney of the county proving by them alone that they did treat the sick and were paid for their work. The jury brought in a verdict of guilty on this testimony alone. In other counties of our State it has been impossible to even secure an indictment, to say nothing of conviction.

This fight has only begun, for the Chiropractors are working with might and main to secure the election of men to the legislature who will assure them of the passage of a bill legalizing them. The fight of last year will be a small affair compared with the one of next year. Now is the time to work upon the personnel of the legislature and not try to convert them after the election.

At times one is tempted to work to do away with all requirements to practice medicine. Just let the whole group of cults, faddists, et cetera, run wild. Yet the people—NOT THE PHYSICIANS—would suffer. We cannot advocate such a course, still it is a temptation.

We do not believe in this method of procedure in the treatment of the sick. No more than we do in the application of axle-grease to the feet for rheumatism; or cows-dung poultices for boils or pneumonia; or ten drops of a specific tincture in four ounces or a gallon of water and its administration in teaspoonful doses. Yet if all who treat the sick would have to pass a rigid examination on the fundamental branches of medical training—Anatomy, Chemistry, Bacteriology, Physiology, Pathology, Diagnosis, and so on—then we would have no fault to find with any line of treatment. Until that time comes, our personal attitude will continue one of opposition.

An interesting incident in regard to the composition of the next legislature is to be found in the report of Dr. Harry M. Hall. Be sure to read of the embarrassment of the candidate.

We extend to the Judge and State's Attorney a vote of thanks for their courageous stand upon this question. Dr. Maxwell and the members of this County Society cannot be too highly praised for their support during the agitation aroused by this legal battle.

WHAT FOOLS WE DOCTORS ARE

The following editorial in the May issue of the Illinois Medical Journal is so timely that it has seemed advisable to print it for the physicians of West Virginia.

There is one thing about the medical profession that we ought to be ashamed of. It is that we are too gullible in the hands of experienced propagandists and self-seeking exploiters who roam about the world under the guise of uplift. Newspaper men and professional politicians long ago found that the doctor would swallow most anything he saw printed. The fact that propaganda "got into type" in the doctor's estimation gives it the sanction of proof, and for this reason we have been the victims of every sort of deception. Yellow journalism and what passes for politics

have established a vicious circle which has milled the medical profession so long that it has become a humiliating joke.

Doctor, don't you ever feel humiliated or rather insulted at times at the estimate the uplifters (for revenue) and politician place on your mentality when he puts before you some of the fifty-seven varieties of deceit, lies and uplift propaganda that a ten-year child should detect, all the time he is trying to make you believe he or she is working for your interest?

SAY IT WITH VOTES

Some enterprising florist coined the phrase "Say it with flowers." That saying has been taken up throughout the country until now it is one of the best known advertising slogans extant.

What more attractive wording could be suggested? Saying it with flowers offers a medium for the expression of almost every sentiment —esteem, affection, reverence, sorrow. Not only has this slogan profited the florist financially, but it has increased the popular use of some of nature's choicest products, and has enhanced the esteem in which he is held as a purveyor of these products.

The medical profession has a similar condition to meet. We want to increase our prestige with the members of the Legislature. Let us, then, adopt a similar slogan: "SAY IT WITH VOTES."

The time will soon be here when you can express your appreciation to those who will give us a square deal in the Assembly, as well as administer—in some instances—an effective rebuke to those who have proved false and have not been true to their word, to those who seek the office of senator or representative but have no regard for the health and physical welfare of the people. To all these you should SAY IT WITH VOTES.

Don't forget that unless it is said with votes at the spring primaries and the fall elections, we may need the flowers to express our regrets. Don't be a "dead one."

DR. EDWARD BANCROFT

Whereas, it has pleased Divine Providence to remove from his earthly sphere of activities our friend and fellow-laborer, Dr. Edward Bancroft; and

Whereas, Dr. Bancroft by his daily walk and upright life endeared himself to all who knew him;

Therefore, be it resolved,

(1) That we, the members of the Cabell County Medical Society, express our appreciation of his life and character both as a man and as a physician, and our sincere regret at his early passing; and

(2) That a copy of these resolutions be sent to the bereaved family, a copy spread upon our minutes and a copy sent to the West Virginia Medical Journal for publication.

WALTER E. VEST, Chairman,
JAMES R. BLOSS,
ROBERT J. WILKINSON,
Committee.

ANNOUNCEMENTS AND COMMUNICATIONS

Charleston, W. Va.,
May 7th, 1924.

Dear Doctor:

Provided that a sufficient number of physicians of West Virginia are interested in a meeting for the dis-

cussion and clinical exhibition of venereal diseases, the Director of the Bureau of Venereal Diseases will arrange for such a meeting to be held in Charleston some time in July or August.

To those of the profession who attended the sessions of 1920 and 1921 there can be no question of their interest and value. It is hoped to make this proposed meeting bigger and better in every way, but, before the plans can be matured, it is necessary to determine approximately how many physicians will be in attendance. Accordingly you are requested to answer the appended questions and return promptly to this office.

W. S. ROBERTSON,
A. A. Surgeon, U. S. P. H. S.
Director, Bureau Venereal Diseases,
State Department of Health.

Will you attend the meeting referred to above? .....

Will you attempt to bring clinical material for diagnosis and treatment? .....

.....

(Signature)

.....

(Street Address)

Ft. Hayes, Columbus, Ohio,
May 1, 1924

Editor W. Va. Medical Journal,
Huntington, W. Va.

Dear Doctor:

An examination for candidates for appointment to the Medical Corps of the Regular Army will be held by the Surgeon General during the week commnecing July 28, 1924.

The general requirements for eligibility are that the candidate must be a male citizen of the United States, between the ages of 22½ and 31½ (unless commissioned in the Medical Reserve Corp, in which case the age must be between 23 and 32); be a graduate of an acceptable medical school legally authorized to confer the degree of doctor of medicine and be physically fit for service as shown by a careful physical examination. Candidates must also have had at least one year's hospital training subsequent to the completion of a four years' course of instruction in a medical school, except in the case of those who have served a year as interne in a military hospital or a year as a medical officer of the United States Army between April 6, 1917, and July 1, 1919.

It is very desirable that the widest possible publicity be given to this matter and, to this end, this letter is being sent to the President or Secretary of each County Medical Society in the hope of securing their cooperation.

A medico-military career offers many advantages not familiar to those of the profession lacking in military experience. These may be more or less loosely grouped under the two heads of "Material advantages" and "Professional advantages." Under the former may be mentioned the following:

(a) Appointed 1st Lieut. at $2696.00 annually ($3152.00 if officer has dependents); Captain at $3456.00 or $3912.00 after 3 years service; Major at $4536.00 or $5448.00 after 12 years service; Lt. Col. at $5626.00 or $6638.00 after 20 years service; Colonel at $6776 or $7200.00 after 26 years service. To the above table must be added

an increase of 5% of base pay for each 3 years of service up to 30 years, with maximum pay of $7200 for a Colonel.

(b) Quarters, heat and light with commissary privileges.

(c) Mileage at 8c per mile for travel under orders.

(d) Transportation of household effects.

(e) Transportation of family.

(f) Thirty days leave a year on full pay.

(g) Retirement on ¾ pay.

(h) Gratuity to family of ½ year's pay in case of death.

Professional:

(a) Special school at Army Medical School. This course cannot be duplicated in civil life, especially in regard to the laboratories.

(b) Opportunity to specialize.

(c) Leaves for study. Reciprocal arrangements have been perfected with certain medical schools and foundations and leaves for study are granted officers where possible.

(d) Opportunity for travel in foreign lands.

Would you assist us by disseminating this information among the members of your Society and by referring any interested physician to the writer for more complete and detailed information? Any assistance you may be able to give in this matter will be greatly appreciated by the War Department.

Very truly yours,

L. T. HESS,
Colonel, Medical Corps, U. S. A.
Surgeon, 5th Corps Area.

ORGANIZATION OF A MEDICAL INTELLIGENCE BUREAU FOR THE HOT SPRINGS NATIONAL PARK OF ARKANSAS

—

Under the auspices of the Garland County Medical Society of Hot Springs, a Medical Intelligence Bureau has been organized for the purpose of placing before the medical profession of America, a clearer and more exact knowledge of the therapeutic values of the waters of the Hot Springs National Park of Arkansas, in the treatment of diseases and conditions resulting from acquired or constitutional toxaemias, faulty metabolism and defective elimination. Colonel L. M. Maus, retired, Medcial Corps, United States Army, has been appointed Intelligence Officer and placed in charge of the bureau.

An advisory committee, consisting of three members of the local medical society, also members of the American Medical Association, has been appointed to co-operate with the intelligence officer in the management of the bureau. Clinical and other professional information relative to the uses of the waters of the springs in the treatment of diseases will be conveyed to the medical profession of the country through addresses before medical societies and conventions, contributions to medical journals, and the distribution of appropriate medical literature on the subject. Members of the profession are cordially invited to correspond with the bureau relative to cases, which have not responded to treatment at home, and to the advisability of sending them to Hot Springs for a course of treatment.

Although Hot Springs is owned and controlled by the United States Government and has been used, with increasing popularity, for more than a hundred years, it is believed that there is a general lack of knowledge throughout the medical fraternity of the country, relative to the healing and beneficial powers of the waters.

Recognizing the beneficial results of Hot Springs in the treatment of chronic rheumatism, arthritis and the various forms of chronic neuritis, more than forty years ago, the Government constructed the Army & Navy General Hospital here, where thousands of officers, enlisted men and veterans of the several wars have been successfully treated. Several years ago the Interior Department, at a cost of several hundred thousand dollars, constructed a public bath house for the poor of the country, where large numbers during all seasons of the year, are treated gratuitously regardless of race, color or sex, by medical officers detailed from the Public Health Service.

In a circular letter published under an Executive Order, as early as August 1892, the Surgeon General of the Army informed medical officers that the waters of Hot Springs, Arkansas, had established a reputation in the treatment of certain diseases, and recommended that patients suffering from the following diseases and conditions be sent there for treatment; the various forms of gout and rheumatism after the acute inflammatory stage, neuralgia, especially when depending upon gout, rheumatism, metallic or malarial poisoning, paralysis, not of central origin, the earlier stages of loco-motor ataxia, functional diseases of the liver, chronic skin diseases, especially the squamous varieties, chronic conditions due to malarial poisoning, infective arthritis, arterio-sclerosis, chronic nephritis and other cardio-renal diseases, selected diseases of metabolism (gout, diabetes, obesity, etc.), chronic gastro-intestinal diseases, which have not responded to continued hospitalization at other places (gastro-neurosis, post-dysenteric colitis, chronic intestinal stasis, etc.). Clinical experience among the practitioners of Hot Springs has proven that these waters taken internally and employed in the form of baths have been very effective in the reduction of high blood pressure.

Every facility has been provided at Hot Springs for the care and treatment of the sick in the way of bath houses, hospitals, sanatoria, hotels and boarding houses. Among the twenty or more bath houses are a number costing from one to three hundred thousand dollars each, and contain the most modern equipment for the different phases of hydrotherapeutic treatment. The climatic conditions are excellent and favorable at all seasons of the year for taking the baths, and are especially so during the warm weather at which seasons skin elimnation is more active.

Hot Springs is provided with an efficient medical staff, which measures up favorably with the profession throughout the country. They are not only required to pass a local federal medical board, but the state board of medical examiners, before allowed to practice and prescribe the baths. The physicians, as well as the bath houses, are under the control of the United States author-

ity through the Park Superintendent, who is an officer of the Public Health Service. Sanitary inspections of the bath houses are made daily and are kept in excellent condition.

The Hot Springs of Arkansas were set aside by Congress in 1832 as a "National Sanitorium for all time and dedicated to the people of the United States, to be free forever from sale or alienation." Frequent physiological and chemical examinations have been made of these waters by government experts and at the present time the Secretary of the Interior has asked another appropriation for that purpose. Professor Boltwood in 1904 declared that the waters of Hot Springs, Arkansas, were strongly radio-active and in 1913 Professors Hunt and Franklin of the National Research Council reported them, with few exceptions, to be as strongly radio-active as any European springs. When the true therapeutic values of these waters become known to the profession of America, and the many erroneous and prejudicial opinions of a generation ago swept away, the Hot Springs National Park of Arkansas will become celebrated as the world's greatest health resort, and prove inestimable in the cure and relief of suffering humanity.

Very respectfully,

L. M. MAUS,

Intelligence Officer.

Hot Springs, Arkansas
April 18, 1924.

COUNTY SOCIETY REPORTS

The Barbour-Randolph-Tucker County Medical Society met in the Y. M. C. A. building, Elkins, April 18th, 1924, the following being present: Doctors Ben I. Golden, A. P. Butt, A. S. Bosworth, G. L. Pierce, T. M. Wilson, L. W. Talbott, O. L. Perry, C. H. Hall, B. L. Liggett, J. C. Irons members, and visiting Doctors Wm. A. Magill and Chas. A. Grooms. Dr. Hall presided. Minutes of previous meeting were read and approved.

Communications were read, one from Dr. C. H. Maxwell, and one from Secretary of the State Association, relative to the full-time Secretary, and five dollar annual increase in membership fees. On motion we deem it now inexpedient to increase membership dues. Motion passed by unanimous vote.

Dr. C. H. Hall was elected Delegate to State Society Meeting, and Dr. O. L. Perry alternate. Hold-over delegate, Dr. S. G. Moore, Dr. A. S. Bosworth, alternate.

Dr. C. A. Grooms read a very well prepared paper on "The Apparently Normal Appendix." In the paper Dr. Grooms states that on investigation he most generally found some foreign substance, or concretion, which appeared to be the exciting cause of appendiceal inflammation, etc. I am sending paper to Journal.

Dr. Wm. A. Magill gave us a talk on his "Personal Reminiscences of the Founder and Review of Bacteriology." Dr. Magill was a pupil of the celebrated Pasteur, and his talk gave us an insight into the manner and ability of this great man. The Doctor has promised his talk in written form for the Journal.

Dr. A. P. Butt gave us a talk on "Evils of Diagnosis." Dr. Butt believes that diagnoses are too carelessly made, and that frequently the patient is better not to know what

is found. Some patients go the round of many physicians and many diagnoses, which frequently are conflicting and cause much trouble and confusion. Too much diagnosis is worse than none at all. He urges caution in deciding and telling the patient. Patients want too much diagnosis and at too little pay. The people need to be educated along these lines.

Dr. J. C. Irons read a paper on "Some of Our Problems." In this paper the enlightenment of the public is held to be the surest way to meet the various forms of cults, quacks, deceptions, superstitions, and false conceptions as to the objects the medical profession have in seeking legislation for governing the practice of medicine.

The Society appointed a Public Committee with a view of educating the public and checking some of the dangers from which the people are suffering. The papers and talks were discussed by Drs. Magill, Ben Golden, Talbott, Perry, Butt, Bosworth and Irons.

Under suspension of rules Dr. Wm. A. Magill, A. M. M. D., of Davis Memorial Hospital, and Dr. Chas. A. Grooms of City Hospital, Elkins, were elected members of the Society.

The Society then adjourned to hold the July meeting in Tucker county, the place and day to be fixed by the members in Tucker county.

J. C. IRONS, Secy.

April 10th, 1924.

A regular meeting of the Cabell County Medical Society was held in the Assembly Room of the Hotel Frederick on the evening of April 10th, 1924, the President, Dr. T. W. Moore, presiding.

The minutes of the previous meeting were approved as read.

The President activated a motion made at a previous meeting to appoint a committee consisting of two Democrats and two Republicans to interview prospective candidates to the State Legislature on their views as to medical legislation, appointed the following committee with the first named as chairman: Dr. C. T. Taylor, L. T. Vinson, A. K. Kessler, and W. E. Neal.

Dr. Walter E. Vest moved that the Cabell County Medical Society join with all of the other civic bodies as guests of the Army and Navy Club at a luncheon to be held on Wednesday, April 16th. Motion carried.

Dr. O. B. Biern moved that this Society refund to the family of Dr. Bancroft, deceased, the moneys paid by him as dues for the coming year, and that a committee be appointed to draft resolutions on his death. The motion was carried and the following committee was appointed: Drs. Vest, Wilkinson and Bloss.

Dr. M. F. McCarthy of Cincinnati, Ohio, as the essayist of the evening, presented one of the most interesting papers ever presented before this society, his title being "Some Comments on Some Unusual Head and Throat Cases." The paper was accompanied by lantern slides illustrating the salient points in his lecture. The paper was discussed by Drs. Hawes, Marple, Sweezey and Buckner, Dr. McCarthy closing.

There being no further business, the meeting adjourned.

OSCAR B. BIERN, M. D.,
Secretary.

April 24th, 1924.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of April 24th, 1924, the President, T. W. Moore, presiding.

The minutes of the previous meeting were approved as read.

Dr. Walter E. Vest, as chairman of a committee appointed to draft resolutions on the death of our late colleague, Dr. Edward Bancroft, presented the following:

Whereas, it has pleased Divine Providence to remove from his earthly sphere of activities our friend and fellow-laborer, Dr. Edward Bancroft; and

Whereas, Dr. Bancroft by his daily walk and upright life endeared himself to all who knew him;

Therefore, be it resolved,

(1) That we, the members of the Cabell County Medical Society, express our appreciation of his life and character both as a man and as a physician, and our sincere regret at his early passing; and

(2) That a copy of these resolutions be sent to the bereaved family, a copy spread upon our minutes and a copy sent to the West Virginia Medical Journal for publication.

WALTER E. VEST, Chairman,
JAMES R. BLOSS,
ROBERT J. WILKINSON,
Committee.

There being no routine business the President then introduced the speaker of the evening, Dr. Finley Gayle of Richmond, Virginia, who entertained the society with a most interesting and well presented paper on the "Diagnosis of Multiple or Disseminated Sclerosis." To bring out the most important points in his paper he also demonstrated a typical case of this disease showing all the classical symptoms previously stressed. The paper was discussed by Drs. Hodges, Vest, Moore, Marple, Ruedeman and Biern, Dr. Gayle closing.

There being no further business the meeting adjourned.

Attendance 30.

OSCAR B. BIERN,
Secretary.

May 8th, 1924.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of May 8th, 1924, the president, Dr. T. W. Moore, presiding.

There being no special committees or routine business to come before the society, Dr. Earl Gerlach moved that we proceed with the scientific program and that the the President call on Dr. W. M. Brunet of the U. S. P. H. Service for his paper first, to enable him to make an early train. Motion seconded and carried.

Dr. Brunet gave a most interesting and common sense presentation of his views on the Control of Venereal Diseases, illustrating his talk with a graphic chart showing the principal causes of the so-called social diseases and what the United States Public Health Service hoped to accomplish. This paper was discussed by Drs. Lesage, Gerlach and Ruedemann, Dr. Brunet closing.

Dr. C. C. Coleman was next called on giving a highly instructive paper on "Plastic Surgery of the

Face." His talk was mainly explanatory of excellent lantern slides showing the almost superhuman reconstruction of the face after disease, accidents and natural deformities. This paper was discussed by Drs. Wilkinson, Lesage and Jones and Marple and Fitch, all paying tribute to Dr. Coleman's skill.

Attendance 34.

There being no further business the meeting adjourned.

OSCAR B. BIERN,
Secretary.

STATE AND GENERAL NEWS

OHIO COUNTY NOTES

HARRY M. HALL, Reporter

Introduction

We are approaching the zero hour for medical activities as usually understood. Yet there is no more common sense in our dropping activities in the summer months just because our societies do not operate, than to forget there is religion or a church because they frequently close.

Our irregular friends will be active, and there is a state legislature coming on, which puts us in mind that a crowd of us were sitting in the McLure Hotel arranging for the meeting, when in came Elmer Hough, candidate for State Senator. For a joke we were represented as chiropractors when he came up to hand out cards. He agreed we ought to have more show at Charleston, said he frequently was given treatments, and was willing to listen. When he learned the truth he was considerably perturbed, which makes you see just what you can look for. A doctor who signed the telegram backing up chiropractors walked into our meeting recently, just as if nothing had ever happened.

April 18th, 1924
DeCourcey Clinic

There is a saying about "an apple a day keeping the doctor away," which was later used by the dairymen to the tune of "a quart of milk a day, etc.," but it was "10 CC of milk protein a day will drive the arthritis away," that intrigued the doctors tonight.

The DeCourceys — one always thinks of "The Three Musketeers" when you pronounce that name—are and have been in the first ranks in Cincinnati wherever medicine is concerned. The father—a pioneer in his way, passed it on to his sons, and they have done well by the name. Our own Dr. Staats has two brothers in this group in Cincinnati, one a urologist, the other an oral surgeon. The doctor always gives them a big send-off, and he well illustrates the persuasive power of a good fellow. Practically 65% of the entire society came out and enjoyed the lectures, as well as the refreshments that were provided, ending with a smoker.

The evening was taken up with the injection of foreign proteid. In the experience of the speakers the results have been very good, and have served to help a variety of chronic conditions not only of the eye but prostatitis, urethritis, angioneurotic oedema (handled with caution), arthritis, synovitis, neuritis, obscure conditions involving the pitutary gland and many other ill defined dyscrasias. They have used milk as well as other proteins. In the discussion possibly it might be said the society's two best "discussers" were used—Doctors Moore

and MacGregor. Dr. Moore always officiates beautifully in naively complimenting the speakers. Most men, including ourselves, always claim we do not like being flattered—possibly not, but we cannot deny we seem to be in a better mood after receiving it. Moore owes us this only as a minor quality. He is well read, and he proceeds as a rule to compare the work of the talker to about every leading man in the country.

Moore carefully went into the matter of the milk and then to other conditions, citing pregnancy as a state in which the body seemed to have a new excitant, proteid or otherwise, which made it enjoy a huge prosperity, national, state and municipal, as he puts it. Without exactly weighing the consequences he related the cases of two women under his care who had arthritis when not pregnant, which was relieved when they were. So he casually stated that he saw to it that they were pregnant most of the time while he treated them. However serious a medical gathering may be they are ever flippant on occasion and they enjoyed (as did the Doctor himself) his dilema. He stuck to it that it was ever difficult to tell just when to assist nature with excitants, and it was still wise to give her plenty of chance first.

Dr. MacGregor came next. He believed that you might light up an individual with proteins so that you could start so many hidden foci into reactions that the person might be lit up like a Christmas tree. He believed as it was the bacteria in the milk rather than the milk itself that gave you the reaction, it was just as well to use typhoid serum or phylacogens. He had obtained results in three cases of migraine from it. He believed you could get so enthused over a new idea that you actually transmit it to your patient, and the patient was sort of mentally relieved and believed he was cured. He therefore believed it were better to use great caution. He cited the list of deaths in a recent number of the Journal A. M. A. from anaphylactic reactions which caused death. However, he thanked the speakers for the work they had done, realizing that the only way progress can be made is by enthusiasts and pioneers.

April 25th, 1924

Dr. J. P. Griffith, Mercy Hospital, Pittsburgh, Pa., addressed the Society, his subject being "Gall Bladder Disease," accompanied with lantern slides.

Dr. Griffith was a good talker. Politically he belonged to the "Take the Gall Bladder Out" group. Once in a while there seems to be gall bladders which are allowed to stay, but he believed the best results were obtained by removal. It was a standard talk.

May 9th, 1924

Dr. C. A. Bowers, Cleveland, Ohio, addressed the Society, his subject being "The Diagnosis and Treatment of Pyelitis," accompanied with lantern slides.

Dr. Bowers is a Wheeling boy. A good crowd turned out to hear him. Medically he believes urotropin gr x with an acid urine or the alternate giving of alkaline and acid reacting agencies—week of one then other the only treatment. He believes in thorough examinations, one point being to examine by X-Ray the ureter injected but with catheter out, so as not to give a false idea of the absence of kinks. He

is rather skeptical of the complete cures and fears Pyelitis often returns. He is looking forward hopefully for a real remedy or procedure which has not yet arrived. This reporter often wonders how men like Crile, Lower and Bowers get the patient to submit to so many examinations. The average patient protests on such minor examinations that when they talk of so many cystoscopies and ureteral examinations, I am lost in admiration. I wonder too if they are all carried out in exact details of the technique. If they are it is certainly prodigious work.

Dr. Bowers takes more heed of the human side of medicine than Dr. Crile, and he is the last word as regards clear, forceful, incisive delivery. The personal view of this reporter of this ultra - scientific school of research and endeavor is that they add immeasurably to the good accomplished. Discussion was more complimentary than controversial.

Election of officers comes next Friday night and then "Good-bye" for the summer season. Did you ever reflect what the medical profession would do without a medical society? Oh woe unto the public! If the much abused old common people only knew how many of them are alive today because of medical societies keeping their doctors fit and up to date, they would be glad to pay their dues. Perhaps they will stumble upon it some day in their slow blind way.

The State Meeting has come and gone. Many of the "stay at homes" were not there. We will leave it to those that were there to tell them about it. Many were kept away by the high water and the rain, yet the registration ran 250 and over anyway. This reporter was disappointed in one thing, and that was the failure of the men to bring their wives. Yet the ground is broken and if any doctor's wife stays at home in the future it will be a reflection on her diplomatic reputation to run her husband. If your husband, Mrs. Doctor is "prohibition" and "wet" away—(whatever than means)—tell him to go his own way and you don't care. Here in Wheeling you could have dropped him all the time and never missed him. High water spoiled the Moundsville trip. Why? Because when the river is over 35 feet you can't get down to that city on account of a low subway in Benwood.

The scientific program was all that could be desired. It reflected great credit on Dr. Ashworth and Dr. MacGregor. They are a good team of ideal workers. They do not falter. They do not "hem and haw." Perhaps you were one of the ones who was cut off in your talking by the President. This reporter was. It was the most wholesome indication of better times ahead. This writer has been president of Rotary and other clubs, and the minute you fail to have the courage to stop a speaker, you, as the guiding hand, are lost. The proceedings moved briskly and according to schedule, and one of the biggest crowds on the floor attended the very last session. The order was excellent. Dr. Ashworth allowed no foolishness, and our old war horse, Dr. McDonald, failed to "get cross" with any of those fancy little wrinkles that have made him a "thorn in the flesh" to the presiding officer.

The Ear, Nose and Throat section was the "brilliant gem" of the cluster. Its sessions were crowded and very successful. We wish all men were as loyal to each other as these multi-millionaires.

Some men think that while it did not get the discussion it deserved, Dr. Morgan's paper on "The Abdomen" was as brilliant a bit of writing as has been done on the subject.

The exhibits were large and varied. The men in charge of the booths objected vigorously that the men did not stop and look. The sessions were so absorbing the men really did very little "loafing." But we are going to ask you to remember every one of their names, and whenever it is possible, patronize them. While they exhibited in Wheeling it was your Society's meeting. They helped to make it one of the biggest displays of its kind ever in the auditorium. Some firms are so large and well fixed that they ignored your State's invitation, yet they are where they are solely by your efforts. They turn down advertising in the State Journal just like they refused the local committee. When will the day arrive that we will regard the Journal as individually "ous"? If Beckton and Dickson will not advertise or help you, surely there are other syringes and other blood pressure apparatus you might possibly get along with. This is not a kind of gunmanship. It is merely a principle of survival of the fittest. If the Journal is going to have advertising, let us individually see it gets it. Personally we hope it gets to the place some day when it is altogether self sustaining. Still we are one of those who read the advertisements every week in the Journals we take. Why not see that the companies get the invitation to join our pages, FROM EVERY MEMBER?

The social side moved along satisfactorily, feeling, of course, the loss of the numbers of wives it had anticipated. The final ball was particularly brilliant. While many had gone home, a considerable number remained and with the local body crowded the floor. Some very dazzling costumes held the attention. There used to be a song in war time, "If he can fight like he loves, etc.," but this reporter has a new one—"If he can cure like he dances." Doctors Steels, Simpson and Anderson have done more to bring other parts of the State to Wheeling and Wheeling reaching out to them, than all other agencies. We say this soberly and sincerely that the women who attended this ball pronounced them as courtly and as fine men as ever graced a ball room. They are recommended as honor guests to any high function from the Atlantic to the Pacific.

The banquet reflects great credit on Dr. Morris, President of the Ohio County Society, except as to the toastmaster, who was ourself. Whether it was the acoustics or a tired brain or general deficiency the toastmaster admits he was a failure. He has been at the presiding chair enough to have been better so he has no alibi. There are times when a speaker arises and finds out he is for some unknown reason psychologically out of tune. Other speakers expressed difficulty. Judge Baker, who was present, was heard easily, so we presume the speakers should have been over by the orchestra. The

idea of having dancing in between and other diversions, such as the men's chorus and eccentric dancing, was well received. A number of doctors gave short talks and others responded, but many of them were not heard. We still adhere to our old idea that only two speakers should be at a banquet of medical men. A good out-of-town medical man and a local layman, who is a good talker. Nothing else in the way of speakers at all.

Taking it all in all it was a good meeting. While it was in Wheeling, and we are from Wheeling, modesty should forbid too much talking, yet it was a State, not a Wheeling, meeting, and it made us prouder than ever of our State Society—proud of Dr. Bloss as an Editor, proud of MacGregor, proud of President Ashworth, proud of Ray, and Fulton, and Hoffman and Butt, and the whole lineup—proud of the program. Those who heard Dr. Potter of Buffalo got enough to pay them for all they spent for the whole meeting, whether they agreed or not. Back of it all is that feeling of confidence that we men of West Virginia can make a name for ourselves by pushing on just like we have. We seemed (at least to this reporter) to be a lot of men who said to the outside world, "We are not only a coal and lumber state—we are a medical state as well. Some day you'll have to reckon with us for our individual discoveries and attainments." All we need is confidence and, above all, solidarity.

So on to Bluefield!

EXAMINATION QUESTIONS

Given by the Board of Examiners for Registered Nurses in the State of West Virginia, April 23rd, 1924.

1. Name three diseases requiring especial diet and give proper diet for one meal in each disease.

2. Define food, diatetics, vitamine, enzyme, metabolism, calorie, nutritive enema, rickets, sweetbreads, elimination.

3. Why is a working knowledge of Bacteriology and Laboratory methods necessary in the education of the trained nurse?

4. Define fracture; dislocation; name three of the classical symptoms present in a broken long bone.

5. What signs or symptoms would you expect in a too tightly applied plaster splint? What would you do?

6. Describe the symptoms of a patient suffering from internal bleeding. What would you do? Name three abdominal operations following which concealed hemorrhage might occur.

7. Define shock. Describe nursing care of a patient in shock.

8. Following an abdominal operation, how would you prepare for the first dressing?

9. Give technic for preparing hands before assisting surgeon. Name four familiar disinfectants used in operating room and the strength of each.

10. Define gynecology, obstetrics, placenta, puerperal fever, ectopic gestation, impaction of bowel. Symptoms of post partem hemorrhage. Describe first aid in uterine bleeding pending arrival of doctor.

11. Describe post natal care of mother immediately following delivery.

12. Mention some of the signs and symptoms of approaching labor.

13. Symptoms of over-distended bladder. Give technic of catheterization.

14. Define typhoid fever. What germ produces typhoid? Outline diet for second week, rules for disinfecting stool of typhoid.

15. Define measles, diphtheria, scarlet fever. Mention three complications of these diseases. Describe nursing care of scarlet fever.

16. Define otitis media. Following what diseases of childhood may it occur? Give symptoms of bleeding following tonsil operation.

17. Name two preparations of opium in common use and give hypodermic dose of each. Give symptoms of over-dose of morphine.

18. Define Diaphoretic, Diuretic, Cathartic, Sedative, Cardiac Stimulant. Mention example and dose of each; dose of Atropine Sulphate, Tincture of Digitalis, Fluid Extract of Ergot, Strychnia Sulphate.

19. Name the parts of the digestive and intestinal tract from the mouth to the anus. How many bones in the human body? Describe the thorax and name the organs contained therein.

20. What does the State of West Virginia hope to gain by the examination and registration of the nurses? Mention five outstanding points of character for the ideal nurse.

Dr. J. W. Hartigan brought mandamus proceedings against the Monongalia County Medical Society to compel them to admit him to membership in the Society. He had been irregularly elected to membership but the action of the Society rescinded at a later meeting and his dues were returned to him.

The Court refused to issue a writ against the Society. He expects to appeal to the Supreme Court.

COURT AIRS VIEWS ON QUALIFICATIONS IN PASSING SENTENCE ON CHIROPRACTOR

Overruling the motion to set aside the verdict and grant a new trial in the case of A. M. Snyder, Morgantown chiropractor, found guilty by a jury for practicing medicine and surgery without a state license, Judge I. Grant Lazzelle sentenced the defendant to pay a fine of $250 and undergo imprisonment in the county jail for a period of six months. Formal motion for an appeal to the supreme court was taken and the defendant furnished bond in the amount of $500.

In overruling the motion and passing sentence Judge Lazzelle took occasion to address the defendant and the bar to considerable length on the subject.

"It is not the intention of this court to pass upon the merits or demerits of any system of healing or practicing medicine or surgery," Judge Lazzelle stated.

"The question at issue in this instance is whether or not the law of the state has been violated," Judge Lazelle continued. "There is no question in the mind of the court—the law has been violated and this defendant and his counsel almost in as many words admitted to the jury that the law had been violated.

"Whether or not the law is wrong, as has been contended in this case, is not within the power of this court to decide, but incidentally it might be stated that this court does not think the law is

wrong and that this defendant is right."

Continuing, Judge Lazzelle stated that the law governing the practice of medicine and surgery sets down specific rules which must be followed by the man who seeks the right to practice in West Virginia. It provides that he must have certain educational qualifications and must pass certain tests to show that he is fitted to deal with the ailments of the human body.

"This defendant," the court stated, "does not have these educational qualifications as he has admitted and has not passed the required test to practice in West Virginia. Hence he is certainly guilty within the eyes of the law."

There are laws the court, explained, against carrying dangerous and deadly weapons; there are laws against making or having intoxicating liquors; there are laws against killing or robbing other citizens, and the law providing a certificate of efficiency to practice medicine is one on the statute books as well as any that have been mentioned.

There are many ignorant people brought before the court, the judge said, who have violated the law because perhaps they were not familiar with the fact that the state of West Virginia does not permit them to do certain things.

"Such people," declared the court, "are more entitled to sympathy and leniency than this apparently intelligent defendant who knew he was violating the law, who continued to violate it after he had been indicted, who is now violating it and who has boasted that he will continue to violate it.

"Instead of thinking in terms of leniency, this court cannot but think in terms of the maximum penalty, yet it will not pronounce that. It will give the maximum fine of $250 and half the maximum jail sentence which will be six months in the county jail."

In closing his address Judge Lazzelle, speaking to the defendant, told him it would be more to his credit to get qualified to take the proper examination than to attempt to "get by" with a law violation.

BOOK REVIEWS

Applied Pathology in Diseases of the Nose, Throat and Ear, by Joseph C. Beck, M. D., F. A. C. S., Associate Professor of Laryngology, Rhinology and Otology, University of Illinois College of Medicine; Chief of Staff, Otolaryngology, North Chicago Hospital, Chicago. Pp. 274, with 268 original illustrations, including four color plates. The price is $7.50. Published by C. V. Mosby Company, 508 N. Grand Boulevard, St. Louis, U. S. A.

It is a contribution that advanced students and the busy practitioner of Oto-laryngology will welcome. The micro-photographic illustrations found in this work beautifully demonstrate pathologic processes and greatly enhance the value of the volume. The author has limited his efforts almost exclusively to his personal experiences and it is therefore not a textbook. Time and space are not consumed in discussing anatomy or tedious citations, but a firm, plain talk of valuable applied pathology of frequently encountered diseases in every

day's work. Frequent mention is made of treatment and the results obtained. The American Oto-laryngologist, as well as the medical profession at large, is in need of just such a first-hand knowledge of the actual pathologic changes as the perusal of this publication affords. The work is not an intensive and exhaustive one, but to the country, very compact and comprehensive and should especially appeal to the physician who does not care to read many pages to obtain a valuable point.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923—Cloth. Price, postpaid, $1.00. Pp. 72. Chicago: American Medical Association, 1923.

This volume contains the unabridged Council reports that have been adopted and authorized for publication during 1923. Some of the reports, due to their technicality, have only been abstracted in The Journal; others have been published in entirety, and still others have never been published elsewhere.

In this volume the Council sets forth the reasons that certain proprietary remedies were found unacceptable for New and Nonofficial Remedies, the reason why it has been deemed wise to omit certain hitherto accepted articles from the present, 1924 edition, of New and Nonofficial Remedies, and the volume also contains certain preliminary reports on products that have therapeutic promise, but are as yet in the experimental stage. There is a long report on the widely advertised Fleischmann's Yeast, which was not found acceptable. Benetol, another article that has had much mention in the daily press, receives attention. There are reports on apiol and mercurial oil, which have been omitted from New and Nonofficial Remedies. In addition to these types, there are preliminary reports on bismuth in the treatment of syphilis, ethylene as an anesthetic, peptone in the treatment of migraine, and tryparsamid; and there are reports of such general interest as that on intravenous therapy and that on progress and conservatism in therapeutics.

For one who wishes to be cognizant not only of what the Council has done, but why it has done it, the book will be very valuable, for it supplements New and Nonofficial Remedies with a more detailed account of the activities of the Council during 1923. New and Nonofficial Remedies records those proprietary remedies which have been accepted; Council Reports treats those which have been found unacceptable, and those which give promise of becoming valuable.

New and Nonofficial Remedies, 1924, containing description of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, $1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients without investigation. He must know the composition of the arti-

cle, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage as well as of the chemical and physical nature of the product.

This need of the physician is met in New and Nonofficial Remedies, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinterested, critical information about the proprietary preparations which the Council deems worthy of recognition. In addition to the description of these proprietary preparations, the book treats those nonofficial remedies which, in the opinion of the Council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may speak with authority on the separate subjects, and are a compilation of the best accepted opinions of today. Thus there is a general article of lactic acid-producing organisms in which the newly accepted Bacillus acidophilus preparations are discussed in connection with other accepted sour or fermented milk preparations. The animal organ preparations, the biologic preparations, the arsenic preparations, and so on, are discussed in such a manner as to make the accepted facts concerning each group readily available.

A glance at the preface of the new volume will show that the book has been extensively revised. In fact, each new edition of New and Nonofficial Remedies is essentially a newly written book, fully indexed.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book), there are references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies is a book that a physician who prescribes drugs cannot afford to be without. The book contains information about medicinal products which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

MEDICINE AND SURGERY

CORONARY THROMBOSIS SIMULATING PERFORATED PEPTIC ULCER

That coronary thrombosis may closely simulate peptic ulcer is shown by the case cited by Leo L. Hardt, Chicago (Journal A. M. A., March 1, 1924), a diagnosis of perforated peptic ulcer seemed justified. The rigid abdomen, the leukocytosis and the elevation of temperature seemed to corroborate the tentative diagnosis of ulcer. The heart tones were a little distant, though easily heard. The temperature, dyspnea and auricular fibrillation that occurred twenty-four hours after admission led to the suspicion of coronary thrombosis. It was impossible to obtain an electro-

cardiographic tracing. Coronary disease was not definitely diagnosed until the morning of the patient's death. Five days after admission, the temperature became normal, and the leukocyte count was reduced from 22,400 to 14,600. The rigidity and tenderness of the abdomen largely subsided, and the symptoms practically disappeared. During the week that followed, the patient frequently stated that he felt perfectly normal and ready to return to work. Operation had been considered, but, owing to the attack of auricular fibrillation, the marked arteriosclerosis and the age of the patient (66), the idea was abandoned and the patient was continued on a medical regimen. Hardt made a study of the symptomatology of a large series of peptic ulcer cases showing chronic perforations and found that patients with this condition frequently have pains which radiate upward over the chest and occasionally down the arms and, not infrequently, are treated for a cardiac condition. In some cases, the symptoms are indistinguishable from those of angina pectoris.

INTERPRETATION OF ABDOMINAL PAIN

When abdominal pain does not point definitely to the cause of the trouble, and when the usual routine examinations, such as test meals, stool examinations, proctoscopy, roentgen-ray, pelvic and genito-urinary examinations, do not prove positively helpful, Henry F. Kramer, Brooklyn (Journal A. M. A., Feb. 23, 1924), has found the following suggestions of assistance: 1. The patient should be required to characterize the pain as to location, kind of pain, time of occurrence, regularity and consistency of its recurrence, the relation to meals, defecation and urination, radiation and what it is relieved by. 2. When the pain is subjectively localized, the patient should be required to indicate with the hand or finger. The patient will usually point with the finger in ulcer, gallbladder and appendix; with the hand across the abdomen, in colon pain. In colitis there is often a general abdominal burning in addition to the colic. In cases in which the area is extensive and indefinite, the focus is generally where the pain first occurred (according to Schmidt). 3. Tender points, superficial or deep, should be searched for. 4. The presence of hyperalgesia should be determined. 5. Tension pain should be elicited by movement of the organs or voluntary movement of the patient. Influence of posture on the pain should be noted. Examinations of the abdomen in the knee chest position, or sitting up with body bent forward, as described by Murphy, will aid in the relaxation of the muscles and permit a more intimate palpation of the organs. Flexion of the extended leg on the abdomen while pressure is made over McBurney's point will cause the appendix to be squeezed between the psoas muscle and the examining fingers. The existence of increased tonicity of muscle or exaggerated muscular reflexes over the area affected should be noted. The colon should be inflated with air to bring out tender points or masses.

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SURGICAL ADVANCEMENT IN THE LAST TWENTY-FIVE YEARS

By M. V. GODBEY, M. D.
Charleston, W. Va.

Oration on Surgery Read Before the West Virginia State Medical Association, May 14, 1924

In presenting to you an account of the advances in surgery during the last 25 years, I realize that, in order to do full justice to my subject, it would take much more time than I have at my disposal. I cannot therefore go into details and mention all the valuable work done, but since the dawn of the twentieth century, many new and ingenious operations and methods have been devised which mark advances in our medical annals and, if I do not mention all of them, it is for want of time.

I shall therefore confine myself to the outstanding facts, the great steps which have affected our art in a marked degree and I shall only mention those eminent men who, by their genius, their enthusiasm for science, and their love for mankind, have devoted their thought and their labor to the service of suffering humanity.

The progress of modern surgery is based on three great discoveries, all of which belong to the nineteenth century. Anæsthesia eliminated pain and made possible operations which no surgeon would have undertaken before this epoch-making discovery. Antisepsis, Lister's great work, prevents wound infection, the terror of earlier surgery, and Roentgen's discovery of the X-ray marked a great advance in surgical diagnosis. It has rendered invaluable service in diagnosing internal pathological conditions. Bone surgery has been revolutionized.

I shall first give a brief survey of the advances of surgery in foreign countries and then consider the important work of the last

quarter of a century in our own country.

Beginning with England, the homeland of many great surgeons of the past, the name of Sir Arbuthnot Lane strikes us as the foremost English surgeon of recent years. I need only mention his work on the treatment of fractures by means of plates and screws which constitutes a great advance in this field of surgery. His greatest merit, however, lies in his work of clearing up chronic intestinal stasis, a condition which has baffled the medical profession. Lane showed that this condition is due to an angulation or kink of the ileum, the so-called Lane's kink, preventing the normal onward movement of the intestinal contents. But he did more than this; he devised an operation to remedy this condition. All of Lane's work falls into the period we are now considering.

Another Englishman who deserves the gratitude of our profession is Sir Victor Horsley, who died in 1916, at the age of 59. He ranked with Cushing, among the greatest brain surgeons of our times. I mention especially his researches on the localization of cerebral functions published in 1909. He greatly enriched our knowledge in this still imperfectly known field.

In 1917, Sir Robert Jones of London published his "Notes on Military and Orthopedic Surgery," an important work, representing the most advanced stage of orthopedic surgery.

In this connection I will also mention another benefactor of mankind, Colonel Henry Smith of India. In no country do so many people suffer from cataract as do the inhabitants of that land. In 1900 Smith devised a new and most efficient method for the extraction of cataract, the so-called intracapsular method, which is now in use all over the world.

Turning to France, I need hardly state that the French have at all times furnished the world with some of the most skillful and successful surgeons. They are peculiarly adapted to this difficult art; they are unsurpassed in their technique; the great names of the past from Pare and Anel to Velpeau and Ne'laton are noteworthy examples.

Among the eminent surgeons of present day France, I mention Rene Leriche of Lyons. In 1914, he originated the new operation of sympathetiectomy which marks an important advance in the surgery of the extremities. He divests the principal artery of the limb of its sheath for about five centimeters, thus removing the sympathetic nerve fibers supplying the extremity. This operation has proved of great value in the treatment of gangrene, Raynaud's disease and perforating ulcer of the foot. Its usefulness has not yet been completely worked out and it promises to give good results in many other pathological conditions of the extremities.

Another eminent French surgeon is Theodore Tuffier of Paris. It was he who in 1901, first carried out spinal anæthesia by means of subarachnoid injections of cocaine, which must be considered one of the most important advances in modern surgery.

Hippolyte Morestin, also of Paris, who died in 1919, was a most skillful surgeon. His method of operation in sliding hernia and that of interilio-abdominal amputation attracted wide attention. But More-

stin was especially skillful in plastic surgery. In this field he performed, during the great war, the most wonderful operations, reconstructing the human features which had been mutilated by projectiles and shell fragments in the most horrible manner.

Carrel, though born in France, shall receive mention among the American surgeons.

Passing on to other European countries, we note the name of Ferdinand Sauerbruch of Marburg, who revolutionized intrathoracic surgery by the invention, in 1903, of his negative and positive pressure apparati. By means of this device, the French surgeon De Quervain was able to excise a portion of the lung which contained a non-tuberculous abscess. This was the first operation of its kind. The Sauerbruch apparatus was afterwards greatly improved by Willie Meyer of New York.

In 1903, August Bier of Berlin published his work on active and passive hyperemia, an innovation which proved a valuable addition to modern surgical therapeutics.

In the beginning of this century, Adolph Lorenz of Vienna, who is now living in New York, earned a well-merited name by his bloodless reduction of congenital dislocation of the hip-joint. In recent years, he devised a new method of operative treatment for old congenital dislocation of the hip. This method, which Lorenz calls bifurcation, consists of an oblique osteotomy of the femoral neck. With the lower segment of the femur forced, under wide abduction, into the old acetabulum, the head, with the upper segment of the neck, forms a fork with the lower segment, thus growing together with it. This operation has proved most valuable, enabling those who walked painfully with crutches to walk ably without support.

I should mention also the injection of adrenalin directly into the heart muscle, or into the left ventricle, as in heart failure from anæsthesia or other causes. It was first proposed by Felden but successfully carried out by Henschen in 1907. This method of resuscitating the arrested heart has been successful in a limited number of cases only, but since all new methods of surgical procedure have been more or less imperfect from the beginning, this method of saving life may become perfected and may prove of great value in the future.

Perhaps the greatest surgeon of our times was the venerable Professor Theodor Kocher of Berne, Switzerland, whose death in 1917, at the ripe old age of 76, was mourned by the medical profession throughout the world. He was a most skillful and scientific surgeon in all the fields of operative surgery. His work on the thyroid gland and his numerous goitre operations are too well known to give them more than passing mention.

Surgery is a science as well as an art. Its progress and application have no national boundaries. There is no German, no French, no American surgery. Its discoveries and advances are the common property of all mankind. Yet America may be justly proud of her accomplishments in this field. For if there is one branch of medical science in which America has been abreast, it has been in the ranks of surgery. From the times of McDowell and Marion Sims, down to Halstead,

Crile and the Mayos, this country has produced most skillful and successful surgeons.

One of the foremost American surgeons of this period is William S. Halstead of New York. He was the first to excise Vater's ampulla for cancer, an operation which he perfected in 1916. Three years later he devised a method of treating the aorta and other large arteries by means of metal bands, thus supplanting the ligation method. His work on the parathyroid glands has thrown much light upon the function of these bodies.

Harvey Cushing has come to be one of the renowned brain surgeons of the world. All of his work belongs to the last 25 years. His researches on the pituitary gland, which were published in 1912, are widely known. Before this time, the physiology and pathology of this organ were very imperfectly understood.

In 1902, the noted surgeon Rudolph Matas of New Orleans first performed aneurismorrhapy, a very successful and important operation.

Another eminent American is George W. Crile, and I can only mention his latest work. His experiments on surgical shock and transfusion have contributed to the armamentarium of the general surgeon. In 1908 he published his work on anociassociation, which consists of a combination of general with local anæsthesia and by which he has been able to reduce operative mortality to a minimum.

Samuel Meltzer of New York, who died in 1920, was the first to use insufflation anæthesia in 1909. Meltzer also originated the method of injecting magnesium sulphate into the spinal cord in the treatment of traumatic tetanus. Kocher treated six cases in this manner and saved the lives of five patients.

Alexis Carrel of the Rockefeller Institute, though born in France, has done his best work in America. He is a Nobel prize winner and his name has gained a world-wide reputation. His end-to-end anastomosis of blood vessels (1902); his experiments on transplantation of blood vessels, viscera and extremities, and his tissue culture experiments are too well known to be considered in detail.

It would be unjust to omit in this connection the name of the great Chicago surgeon, John B. Murphy, who died in 1916. Though his best work on intestinal surgery belongs to a previous period, his influence on American surgery has been noteworthy at all times.

The Mayo Brothers of Rochester, Minn., and their extensive work are so well known to you that I need merely speak their names to bring to your minds their influence on modern surgery.

There are numerous other American surgeons who have done valuable work during this period, of which the scope of this paper does not permit me to make mention.

The advances of modern surgery proved of unmeasurable value during the great European war. No previous war was so destructive to human life. The extensive development of modern arms resulted in the most terrible wounds and mutilations. But the excellent training and the skill of the surgeons had fitted them for, or made them equal to, their task. It should be stated, however, that the war added no remarkable principle to surgery aside from the Carrel-Dakin treatment of

wounds. This must be considered a distinct advance in modern surgery. Plastic surgery celebrated a great triumph in this war, and under the leadership of the French surgeon Morestin, maxillo-facial surgery reached its highest perfection.

To close this brief review, it is proper to call attention to the great advance in operative technique. This has reached a degree of refinement in all its details which had never before been attained. At no time in the history of surgery has operative mortality been reduced to so low a degree as in the last 25 years. A characteristic of the modern surgeon is clean, rapid work, with a minimal handling of viscera and tissues. Such work as is done by the Mayos at Rochester is typical of the modern surgeon.

Surgery has advanced at such a rate that it would seem that the art had almost reached the heights of developments. And yet there is no limit to progress. There are still many problems in all fields of surgery which await solution, and America which, in the past, has played such a great role in the advancement of surgery, will unquestionably do its part in the years to come.

THE DIAGNOSIS OF EARLY PULMONARY TUBERCULOSIS

By WALTER E. VEST, M.D., F.A.C.P.
Huntington, W. Va.

Read Before the West Virginia State Medical Association, Wheeling, May 14, 1924

In diagnosing any condition, one factor often not sufficiently emphasized is the necessity of taking a good history, and in no instance is this more true than when we suspect pulmonary tuberculosis. In determining the presence or absence of this disease in an individual, it is necessary to learn by the quiz method certain things about the patient, his past life and present status. The more important points for consideration under the general heading of history and symptoms are:

(1) Contact history;
(2) Previous pleurisy;
(3) Loss of weight and strength;
(4) Cough;
(5) Catching cold readily;
(6) Digestive disturbances;
(7) Afternoon temperature;
(8) Pulse accelerated out of proportion to temperature;
(9) Night sweats;
(10) Hemoptysis.

The contact history is of decided importance especially when it dates to childhood, and residence in an infected house is probably of as much significance as a positive family history. While every case of tuberculosis is derived from some preexisting case, prolonged exposure is necessary for infection. A previous history of pleurisy cannot be overestimated especially if an effusion was present, for as a general rule, primary pleurisy is tuberculous pleurisy. Loss of weight and strength is a symptom that is not always present early, and when present does not always mean tuberculosis, but its presence is always suggestive, and its gradual onset is especially so. Cough is present in so many diseases that its importance has probably been overestimated in the past. Its absence does not exclude tuberculosis, for in a goodly percentage of cases cough is a late symptom. Prolonged cough is very

significant, however. Expectoration is of about the same diagnostic value as cough and may be more significant when present in the morning. "Catching cold readily" probably does not deserve the importance accorded it in the past, for it may just as likely mean a focus of infection in the upper respiratory tract as anything else. Digestive disturbances may or may not be present, and now and then we see a patient in which indigestion is the presenting symptom. An afternoon rise of temperature over any extended period is strong presumptive evidence of active tuberculous disease, but in children may mean chronic purulent tonsillitis rather than tuberculosis. A pulse accelerated out of proportion to temperature is very significant, but this finding requires that a toxic thyroid be eliminated. Night sweats are usually a fairly late symptom. In reality this is a septic phenomenon due to secondary infection by pyogenic organisms. When present, septic infections should be excluded.

The most important symptom of tuberculosis, from a diagnostic standpoint, is the spitting of blood. Hemoptysis is not always present, but when it is, and the origin of the blood cannot be clearly shown to be extrapulmonary, it should be considered pathognomonic. Hemorrhage may be the first symptom, and it is fortunate for the patient when this is true, for it usually frightens him so that he is willing to take treatment until the disease is arrested.

When we come to consider the physical examination, a definite routine is necessary. The patient should be stripped to the waist and personally I prefer that he be comfortably seated for the examination, certainly for auscultation. It is preferable to make the physical in the classical order. Under inspection we should note: ①Depression of the supraclavicular fossæ and chest emaciation; ②Inequality of chest expansion, and ③Unilateral scapular lagging. All of these are only suggestive signs; the first is seen in any wasting condition and the third is probably of more value and seen earlier than the others, but at best it is only suggestive.

Palpation has been of little value in my hands. Pottenger has called attention to the inequality of skin tensity over the apices, the sound side showing the more freely movable integument. I have seen him demonstrate it with apparent success, but have never been able to educate my own sense of touch to that point. The intensity of the vocal fremitus should be noted, and this is best done by using the ulnar edge of the hand rather than the flat hand or the finger tips. Percussion may demonstrate a difference in the note elicited over the two sides, the impairment of resonance being noted on the affected side.

Under auscultation, the findings of importance to be looked for are: ①The prolongation of expiration; ②The increased transmission of whispered voice, and ③Rales. Of these the first two are moderately late findings, and the third is by far the most important; in fact the most important finding in the whole examination. Rales are best elicited by allowing the patient to breathe out as much as possible, then cough and breathe in. Rales heard over the apices and elicited by this pro-

cedure are probably the earliest demonstrable sign of tuberculosis.

The laboratory may be of definite aid. The blood may show a secondary anemia and a fairly high lymphocyte percentage with a normal or slightly diminished white count. The estimation of the immature polymorphoneuclear cells, the Arneth count, has not been of sufficient value to me to justify its use, and I have had no experience with complement fixation. Thin purulent sputum is more likely to be tubercular than the thick tenacious purulent type. The time of expectoration is not of so much importance as the physical characteristics just mentioned, and my own observation has been that morning sputum showing black specks is more likely to show pneumococci than tubercle bacilli. One thing not sufficiently emphasized is that the absence of tubercle bacilli in sputum has no bearing whatever on the diagnosis. On the other hand, their presence is pathognomonic. The estimation of the basal metabolic rate is of value only in eliminating hyperthyroidism. A positive Von Pirquet in childhood is strongly suggestive of tuberculous infection, while a negative finding, especially in adults, practically excludes the disease.

The Roentgen-ray is of value, but is not entitled to the high place accorded it by the laity and by a goodly percentage of the medical profession. The fluoroscope's chief value is in determining the clearing of the apices after cough, in excluding aortic aneurysms, and in observing the excursion of the diaphragms. Stereoscopic plates are worth infinitely more than flat plates, but should be evaluated only in conjunction with the physical findings. It should always be remembered that an X-ray is only one element in a clinical picture, the photograph of a shadow, and can best be read by one familiar with the physical examination, provided, of course, that the clinician has had reasonable experience in the reading of chest plates.

At times observation over a considerable period is necessary to make a diagnosis and in these cases a four-hour temperature curve is essential. Also it is proper in evaluating the physical signs to remember the differences between the two sides of the normal chest. Apical involvements are practically always tubercular, and in general terms basal lesions are not. Primary basal tuberculosis may exist, however. Rales, to be of definite significance, must be persistent, and moist rales are evidence of activity.

In the final analysis, each doubtful case is an individual problem in diagnosis and great care is necessary, for it is absolutely essential from the patient's standpoint that he know definitely whether he is the victim of a tuberculous invasion or not.

CONSULTANT SERVICE FOR TUBERCULOSIS CLINICS

By HAROLD BROWN, M. D.
Pittsburgh, Pa.

The perplexities encountered in the recognition of early pulmonary tuberculosis, as well as the great importance of a correct diagnosis at this stage of the disease, have combined to render this particular phase of medicine largely the concern of the specially trained phy-

sician. The constantly increasing refinement in the technique of physical examination has contributed greatly toward bringing about this result. Improvement in the result obtained by physical examination, while it has not been furthered by the discovery of new methods in recent years, has been manifested in the steady increase in efficiency of interpretation of signs that are already old in medical history. The addition of up-to-date laboratory methods, and above all the great contribution to the strength of our armament afforded by the routine use of the X-ray, have also aided in the separation of tuberculosis work from the field of general medicine.

That this development on the whole has been a forward step, leading to earlier diagnosis and through this to a more effective control of the disease, cannot well be denied. The ability of the modern specialist to arrive at a definite diagnosis before the disease has progressed so far as to be incurable, has without doubt had a favorable effect upon the mortality rate from tuberculosis. But the advance has not been made without the sacrifice of certain desirable features in the older methods of handling disease. The worker in any restricted field has a well-defined tendency to overestimate the importance of his own specialty, and the tuberculosis man pays this penalty of specialization in common with others. Indeed he is sometimes the greatest offender of all, because of the fact that he is frequently forced into tuberculosis work through a breakdown in his own health, and that this often happens before he has had any amount of experience in general medicine.

The development of the tuberculosis specialist has been to some extent coincident with, and even partially responsible for, the tremendous growth of the tuberculosis clinic during the past twenty years. The clinic, occupying as it does the main strategic position in the organized warfare against tuberculosis, represents also the chief medium through which the specialist comes in contact with his cases. It has been estimated that the long-established tuberculosis clinic reports over forty per cent of the cases of pulmonary disease in a given community. The clinic forms the connecting link between the patient, either directly or through the medium of the practicing physician, on the one hand, and all other agencies for the control of tuberculosis on the other. Because of this, its functions have grown to be many and varied. It should be fully equipped to wage an aggressive campaign against its enemy, both in the case of the individual patient and that of the community at large. Besides facilities for the reception and examination of patients and the maintenance of an adequate record system, the clinic should have access to, or include as a part of its equipment, a laboratory sufficiently complete to make all usual examinations as a matter of routine. Also the great importance of the X-ray as an aid to diagnosis in chest diseases makes this procedure desirable in a large percentage of cases, so much so that the X-ray outfit should preferably be a part of the equipment of the clinic. Where the expense incident to the installation and operation of an X-ray plant cannot be met, arrangement should be made with other agencies with

the object of obtaining this service for the patient at a moderate cost. It is highly advantageous in the latter case for the plates to be made available for study by the clinician at work on the case. The value of X-ray diagnosis in chest work is greatly lessened when the plates are interpreted by one who is not familiar with the clinical picture of the case.

To overcome the tendency toward over-specialization it is advantageous for the clinic to be in intimate relationship with a group of clinics, or a general dispensary. There is no question but that a general overhauling of the patient in the medical department of a complete dispensary is a fitting preface to his introduction into the tuberculosis clinic. Affiliation with a general dispensary is not often feasible, but at least the clinic should be in close cooperation with men in other branches of medicine, so that patients presenting signs of conditions other than tuberculosis may be referred outside the clinic for diagnosis.

The functions of the clinic may be conveniently regarded as coming under two general headings: the one comprising clinical service to the patient, the other preventative service to the public, regarding the patient as an element in the propagation of the disease, and hence in its prevention and control. Every case of tuberculosis must be considered from the broad aspect of the public health. It is in its efforts toward the preservation of health that the clinic performs its most vital service. The clinic must reach through the patient into his home, where many of the problems of dissemination of the disease find their solution. In pursuance of this aim the clinic must relinquish its traditional receptive attitude, and the contact cases and suspects must be made available for examination whenever possible. For this phase of clinic activity an efficient social service department is essential, since it is only through this that many of the most vital questions regarding infection can be studied, and many of the unsuspected cases of tuberculosis can be reached. Further, in order to perform its entire duty toward the public health, the clinic should be actively engaged in all legitimate forms of publicity work and the dissemination of information about the disease to the general public.

It is not reasonable to suppose that the small tuberculosis clinic, composed of perhaps a doctor and a nurse with one or two volunteer assistants, can perform all the functions of a well-equipped stationary dispensary. Where it is mobile, traveling from place to place, and holding sessions in each community at irregular or long separated intervals, the problem of real service to the community becomes increasingly difficult. Continued observation of patients over a certain period of time is always important in tuberculosis work, and is frequently essential in order that the diagnosis may be established. This continuity of contact is not possible with the occasional clinic, except in a partial, and to the specialist, an unsatisfactory degree. Further there is a lack of laboratory and X-ray facilities, and perhaps more important, frequently a lack of knowledge of local and home conditions which might influence profoundly the disposition of a given case from

a public health standpoint. In spite of these deficiencies the small, occasional clinic may often be of very great service to a community. The only activities possible to the clinic force are the examination of patients and the compilation of suitable records, all other activities being furnished locally through the medium of the attending physician. The efforts of this type of clinic should therefore be directed toward furnishing diagnostic service, through the medium of the attending physician, to the people of the community. Personal conference over each case with the local physician is highly desirable. Failing in this as complete a record as possible should be made by the examiner, embracing suggestions for making a diagnosis, if this is not justified at one examination, and for treatment if a positive finding can be established. This record should be forwarded to, or rendered easily available to the attending physician. It is not possible for the specialist to accomplish anything of permanent value without the complete cooperation of the attending physician. Therefore a routine excluding all patients except those referred by physicians is advisable.

It is possible, with this type of clinic, operated solely as diagnostic service for the local physician, to accomplish much of permanent and lasting good. A great amount of ground can be covered through such a service in a relatively short time. In Morgantown, where such a clinic has been in existence for a sufficient length of time to justify a tentative evaluation of results, the accomplishment appears to be fully commensurate with the effort involved. An average of just over twenty-five patients were examined by the physician-in-charge at each clinic. Fourteen percent of the total were diagnosed as tuberculous at the clinic, an additional seven percent were referred back to their physician for further study. The records in each case were made available to the referring physician. Such a clinic, holding sessions once a month, takes the time of the specialist for the entire day, the time expended being negligible for the amount of work accomplished. It may be mentioned in passing that participation of the local physician in the activities of the clinic is likely to be more complete and helpful if the examiner is a visitor from another community.

The small tuberculosis clinic is not only of service in a consultant capacity, but often serves to emphasize, through the results obtained, the need for local tuberculosis hospitals, or for more prolonged and persistent efforts toward control in the community than can be furnished by it alone. After having been in operation for a requisite time, the results may be available as a fairly accurate tuberculosis survey of the community.

The tuberculosis clinic has been spoken of as the one indispensable function in the organized effort against tuberculosis. With equal truth the practicing physician may be spoken of as the foundation upon which the structure must rest. Its remarkable growth is sufficient evidence that the practicing physician has not been slow to signify his approval of the effort at tuberculosis control as made through the dispensary. In 1904 there were established but twenty dispensaries in the country whose special aim was

directed against tuberculosis, in 1924 there are well over five hundred. In the city of New York over twenty thousand individuals apply for examination at the clinics each year. It would indeed be astonishing if this great expansion had been accomplished without opposition or disparagement. Elimination of just causes for opposition constitute the best guarantee of continued growth in the future. The tuberculosis specialist has had in the past a more or less legitimate complaint that his cases are referred to him, or come under his supervision, with the disease so far advanced as to render effectual treatment impossible. He alleges that delay caused by attempt to treat the patient at home, when the exact nature of the illness is not understood, results in opportunity for the spread of infection that could be obviated by a more prompt diagnosis, to say nothing of the harm occasioned by the delayed diagnosis to the patient himself. The general practitioner has on his side the accusation, very often just, that the tuberculosis clinic does not confine its activities to tuberculosis.

Continued and better cooperation in the future must depend upon a modification, through a better understanding of exact motives, of these impressions. The tuberculosis specialist must be guided by the hope of achieving, through the aid of the general practitioner, a more concerted attack upon the disease than has been possible up to the present time. He must play fair with the general practitioner by rendering, through the medium of the clinic, an efficient consultant service, and where the clinic is sufficiently well equipped, increased opportunities for X-ray and laboratory service at a reasonable cost. He must rigidly exclude from the clinic all cases not strictly tuberculous, rendering his service to the physician by returning these cases to him, with perhaps a more accurate diagnosis which his experience and the facilities of the clinic enable him to achieve. He must furnish the guidance and special knowledge necessary to oversee cases that are suitable for treatment at home under the direct supervision of the family physician.

On the other hand in order to obtain more completely the diagnostic advantages offered by the tuberculosis clinic, the general practitioner should regard the tuberculous patient as a problem having a direct effect upon the health of the community. While late or delayed diagnosis is frequently not the fault of the physician, it nevertheless is often the result of the failure on the part of both the physician and the patient to utilize all of the opportunities for arriving at a diagnosis that are open to them. Delayed diagnosis is not only responsible for an unnecessarily high death rate, but increases the opportunities for spreading infection during the period in which the patient remains undiagnosed. On the other hand erroneous diagnosis, even if it does not directly result in loss of life, is responsible for a vast amount of mental suffering and financial loss. The dangers arising from late, and from mistaken, diagnosis can only be lessened by a more frequent reference of suspicious cases to the clinic. Concerted action of this character, on the part of both the general practitioner and the clinic, furnishes the most promising medium through which the struggle of

society to free itself from the incumbrance of tuberculosis may be brought to a successful conclusion.

ADDRESS OF WELCOME

By HON. T. F. THONER, Mayor
Wheeling, W. Va.

As Mayor of Wheeling I want to express to you my appreciation for this opportunity of meeting with the members of the West Virginia State Medical Association and for the privilege of extending to you on behalf of our citizens an official welcome.

I congratulate you on the attendance here today, which indicates that considerable interest is being taken in your annual session and gives assurance that it is going to be a wonderful and successful meeting.

I am informed that your organization has for its purpose the fostering of a spirit of fraternity and more cordial relationship in the profession; that discussions are planned looking forward to progressive measures for the solution of public health problems, also looking after legislative enactments when necessary, and the elevation of the standard of medicine and surgery.

I have no doubt that a great amount of good can be accomplished by meetings such as you are having here at this time.

I am quite certain that when men gather together as you are doing, to discuss the profession in which you are engaged, mankind and the country as a whole are bettered, because in the concentrated efforts and by friendly comparison of ideas and methods, your profession has been able to make the great progress that has been made up to the present time.

I realize that you are going to be busy almost the entire time you are with us; that you will have very little time for sightseeing, so I have concluded, for the benefit of those of our guests who are not conversant with our city, to give just a brief sketch of Wheeling.

Commercially it reaches out to the West into Ohio's greatest coal producing district, on the East to the great State of Pennsylvania. It is the Tri-State center of a district comprising over 250,000 population within a radium of thirty miles. We are surrounded on all sides by an abundance of natural resources, making an ideal location, geographically, for the manufacturer.

Our population is over 60,000. We operate under the Commission or City Manager form of government.

The Police Department has a personnel of seventy-five men and the Chief. It is second to none in the country.

The Fire Department, with fourteen pieces of apparatus is entirely motorized. Our fire loss during the past year was very small, which speaks well for the efficiency of that department.

Our Health Department is in charge of a first class physician, a full-time official. As the Health Officer is required by ordinance to be a physician, the part-time method proved more or less unsatisfactory on account of the fact that there was a conflict between his

public and private work, and it was very evident that the importance of the health work demanded all of the time of the head of that department. One of the most important features of the health department work is food inspection. The department collects over 2000 samples of milk annually, which is examined chemically and bacteriologically and the results published in the daily papers.

With the appointment of a female food inspector, this part of the work was given new life. Every restaurant and eating place is carefully inspected and scored from a sanitary standpoint. The same course is pursued with bakeries, groceries, meat markets, fountains in confectioneries and drug stores, as well as with ice cream manufacturers.

Samples of river water are examined for bacteria every other day. When the water contains colon bacillus the public is warned of the danger. Since 1918 chlorine gas has been used in our Ohio River water and our death rate from typhoid has materially decreased. During the year 1890, with a population of 30,000, there were 128 deaths, and in 1891 there were 133 deaths, from typhoid fever, and year after year typhoid fever, which you all know is a preventable disease, caused from 3 to 16 per cent of our total deaths. With the use of chlorine gas we had but six deaths from typhoid fever during the year 1922, four being nonresidents brought to this city for treatment. Upon the installation of The new filtration plant we hope to eliminate the typhoid germ entirely. We are installing an up-to-date filtration plant to furnish twenty million gallons daily of pure wholesome water. We hope to have it finished and furnishing water by October 1 of this year.

There are many other good things accomplished by the health department which I know you would be interested in, but I will not take up your valuable time now in attempting to acquaint you with them. I would suggest however that, if you have the time while in the city, you pay the office of the health department a visit, where you will be given any information you may want. On behalf of the health department I extend to you an invitation to give them a call and I assure you a hearty and cordial welcome.

I will ask you to excuse me for trespassing upon your valuable time, but I felt the subjects which I referred to were of vital interest and that this is the proper time to bring them to your attention.

I again assure you that I am delighted to have the honor of welcoming you and your association to this city. It is a great pleasure to extend to you today a sincere and cordial welcome, a welcome of true hospitality. I trust your visit to this city will be both profitable and pleasant and at the close of this convention, when you return to your homes to again assume the duties of your profession, I hope you will cherish in your memory the thought of the pleasant hours spent in this city and that it will be your pleasure to return again soon and frequently.

I again bid you welcome.

MINUTES OF HOUSE OF DELEGATES

Monday, May 12, 1924
9 P. M.

The meeting was called to order by the President, Dr. R. A. Ashworth.

The Committee of Scientific Work Dr. D. A. MacGregor, chairman, presented the program as their report.

There being only a few members of the House of Delegates present, upon motion of Dr. J. Howard Anderson it was voted to adjourn until nine A. M. Tuesday.

Tuesday, May 13, 9 A. M.

The House of Delegates was called to order by the President, Dr. R. A. Ashworth, who announced that the Committee on Scientific Work had reported the previous evening.

Dr. James R. Bloss read the report of the Committee on Publication, which was accepted with a rising vote of thanks and was referred to the Council for auditing and further report.

EDITOR'S REPORT

Gentlemen:

The time has come for me to prepare for you my eighth annual report.

During the year 1923, our Journal was issued promptly each month, and the average copies per issue was 1168. The size of the Journal was increased, the pages of reading matter being increased from forty (40) to fifty-six (56) pages per issues.

So far as the financing of the Journal is concerned, it is very pleasing to your Editor to note that he did not have to call upon the Treasurer of the State Association for any money. The balance which he had on hand, together with the amount received from advertisers and so on being sufficient to pay for the cost of the Journal, even though the expense connected with its publication amounted to $3,550.75. This cost to our organization since January, 1916, when the present Editor took charge of our publication has increased from the cost of $125.00 per issue to an average cost for printing, binding and mailing the Journal of $286.65 per issue, being as you see an increase of more than 125% in cost. The present cost of the Journal for each member is approximately $3.00 per year, and we receive from each member $2.00, yet we have been able to break even. This cost does not take into consideration the salary of the Editor, which has been met by the $2.00 assessment from each member.

We feel that the West Virginia Medical Journal is a creditable State Journal. It does not of course meet all of the ambitions of the Editor, any more than it does of the individual members of the State Association. There are great possibilities for our State Journal, and it is the sincere hope of your Editor that these changes can all be brought about, until it is all that we would have it to be.

The present Editor has felt that the most important thing for him to do editorially, and otherwise, has been to use what little influence he may possess for the purpose of encouraging organization and trying to awaken the individual members to the importance of personal co-operation on their part. There has been this past year, as each year in the past, criticism that our Journal has not been sufficiently scientific. Your Editor readily admits

that it has not been as scientific as he would desire it to be. He is but one man, and by the time he has managed the business end of the Journal, and endeavored to get each issue out promptly on time, together with an effort on his part to earn a living in the practice of his profession, finds that he cannot write a sufficient amount of scientific medical articles, editorial comments, and so on, to provide material for twelve issues of this Journal. He has published the papers of the various members read at the State Association, and at the meetings of the various component societies. If you will stop to think that the Editor has to read every word that goes into the reading pages of the Journal twice for each issue, you will see that his work is more or less heavy. If the articles which have appeared in our Journal have not been scientific, it is because the members of our organization do not, will not or cannot write scientific articles. That is for the members of the West Virginia Medical Association to determine.

As I told you last year in my report, it becomes increasingly evident that the time has come in the affairs of the West Virginia Medical Association, and particularly as relates to our State Journal, when it is, in the opinion of your Editor, absolutely essential that an executive officer for our organization shall be employed, who, among his other duties, shall take over the entire management of the Journal.

I have proven to my own satisfaction, and I hope to the satisfaction of the West Virginia Medical Association, that an ethical journal, accepting only advertising of reputable firms, and demanding that the standards established by the Committee of Chemistry and Pharmacy of the A. M. A. shall be met in all articles advertised, can be accomplished with no financial loss.

An Executive Secretary acting as business manager for the Journal could secure far more advertising than can any physician editor who is having to look after his practice, and to whom the editorship is but a side issue, could possibly expect to secure.

This issue was brought up at the meeting in Beckley last year, and on motion of Dr. Steele, was laid upon the table until this annual meeting, in order that the various component societies might thoroughly consider the matter and discuss it so that their delegates might come to Wheeling prepared to express the views of the various members of the organization. It will be necessary, for a time at least, to increase the annual dues of the State Association $5.00 in order to meet these plans. I firmly believe that the increased advertising, and larger state organization membership, which will naturally follow the employment of some man, in my opinion preferably a layman, who should devote all of his time to furthering the interests of our State organization, will, in the course of two or three years give an opportunity for a reduction in the annual state dues. But even should this not be so, the increased benefits and influence of our association as they will accrue from such a course as this will be regarded, I am sure, by the members as being very cheap at the price. Such a thing is possible that with the work expanding and greater possibilities presenting themselves through this, there might be a unanimous vote to still further increase the dues.

Gentlemen, we must face this issue squarely, and adopt the principles of business insofar as it relates to the organization and business management of our West Virginia Medical Association.

You will find attached a copy of the Editor's financial statement of the affairs of the Journal during the year 1923.

Respectfully submitted,

JAS. R. BLOSS, Editor.

EDITOR'S FINANCIAL REPORT, WEST VIRGINIA MEDICAL JOURNAL

January 1st, 1923, to December 31st, 1923

Balance carried over	$ 92.93	
Received from advertisers and cash receipts outside subscriptions to Journal, extra copies, etc.	3,574.23	
		$3,667.16

EXPENSES

Ck. No.	1923 Date	1923 Issue	Printing Journal	Postage	Refund	Office S'plies	B'd'g Jour. State Sec.	
129—	1/25	Jan.	$ 287.45	$ 5.40				
130—	1/25					$1.40		
131—	1/26			5.00				
132—	3/ 9	Feb.	285.00	6.67				
133—	4/ 9			5.00				
134—	4/10	Mar.	288.60	5.61				
135—	4/16	Apr.	289.90	5.67				
136—	4/28				$100.00			
137—	5/ 5	Cancelled						
138—	5/14	May	286.20	5.54				
139—	5/28			5.00				
140—	6/18	June	287.45	5.42				
141—	7/16	July	287.45	5.55				
142—Voided as through oversight was not used in numerical order.								
143—	8/20	Aug.	280.00	5.40				
144—	8/20						$4.00	
145—	9/ 1			5.00				
146—	10/13	Sept.	285.00	5.55				
147—	10/13					3.50		
148—	10/13					2.00		
149—	11/14	Oct.	285.00	4.00				
150—	12/14			5.00				
151—	12/14	Nov.	288.96	5.46				
152—	12/22	Dec.	292.64	5.95				
			$3.348.65	$91.22	$100.00	$6.90	$4.00	$3,550.77

Bank Balance December 31st, 1923 ..... $ 16.39

Amount due on 1923 business but not received before December 31st, 1923, $294.06.

The following report of the Committee on Public Policy and Legislation was presented by Dr. C. A. Ray:

REPORT OF COMMITEE ON PUBLIC POLICY AND LEGISLATION

The Chairman of this Committee conceived the idea that the medical profession of West Virginia would be greatly benefited by inducing more of our members to take some interest in politics. After advising with other members of the Committee and several Councilors, we started a campaign of correspondence. We first sent to every member of the Association a letter asking him to make an effort as an individual to use his influence in securing new members by asking all worthy physicians to join the local society, and setting forth some of the important questions which should be considered by our next legislature, a few of which are the chiropractic question, laws to prevent fraudulent advertising, the proper labeling of all poisonous household remedies, and

changing the medical practice act so that justices of the peace will have jurisdiction. Inclosed in this was a copy of a letter I mailed to every doctor in the State not a member of our Association, setting forth in our humble way the benefits to be derived by becoming a member. In all, we mailed more than three thousand letters. What the ultimate results will be we are not able to say, but I have had a great many replies asking all sorts of questions as to how and where they can become members.

So far as I have been able to learn, there are about sixty members of our profession in the State, from both parties, offering their services as legislators. If we do our part in the primaries to be held soon, we ought to have in both houses of the next legislature at least fifteen doctors.

(Signed) C. A. RAY, Chmn.
R. A. ASHWORTH
D. A. MacGREGOR
M. V. GODBEY
S. R. HOLROYD.

Dr. Bloss moved that the report of the Committee be accepted and that the thanks of the Association be extended to Dr. Ray for the work he has done. This motion was seconded by Dr. H. G. Steele and was carried.

Dr. Hugh G. Nicholson, Treasurer, stated that the Treasurer had not paid for any of the stationery or postage used by Dr. Ray for the work of this Committee, and moved that he be reimbursed, which motion was seconded and carried.

Dr. D. A. MacGregor, Secretary, reported the paid membership up to the time of this meeting as 935. (Last year the entire number paid up to December 31 was 1076.) Dr. MacGregor also reported most excellent co-operation from the secretaries of the local societies. The report of the Secretary was accepted.

Dr. Ashworth, President (formerly Secretary), reported that the amount of money collected and turned over to the Treasurer during the period of his incumbency since the time of his last report as Secretary was $5,351.50.

The Treasurer, Dr. Nicholson, read his report, which was accepted and referred to the Council, on motion of Dr. C. G. Morgan.

REPORTS OF COUNCILORS

District No. 4, Dr. G. D. Jeffers: District No. 4 is getting along harmoniously. There are fifty-four members paid up, and we shall have more members in a short time. The district is prospering.

Upon request of Dr. Bloss, Dr. O. B. Biern reported for Cabell County as follows: There are one hundred and six physicians in Huntington of whom only sixty are paid-up members, but they feel sure they will have ninety or ninety-five members before the end of the year. It seems to me that the county societies have not close enough contact with the State Association, and that the Secretary of the State Association should visit every county society during the year.

First District, Dr. H. P. Linsz: In the First District the Ohio County Medical Society has ninety-six paid-up members this year so far. District No. 1 is in very good condition, and peace and harmony prevail.

Fifth District, Dr. H. G. Steele: So far as Mercer County is concerned, we have at present fifty-

four paid-up members. Last year we had about sixty-two. There are possibly in the neighborhood of seventy physicians in Mercer County. Harmony exists and our Society is really progressing. Our County Society sent us here to vote for the increase in State dues.

Fifth District, Dr. J. Howard Anderson: McDowell County has had a very prosperous year. Through the courtesy of Dr. Rutherford we have used the hospital at Welch for our rallying ground, and have had some good meetings. Our good friend Dr. Bonar, of University Extension, came down to see us, and we are going to have a post-graduate course this summer. In McDowell County things are going well. In these industrial counties the personnel is continually changing, and while we have added some new members to our Society, we have also lost some members. I believe we have forty paid-up now.

As to the Executive Secretary for the State Association, McDowell will be found all right on that. Whenever anything like that is desired by the Association, McDowell will support it.

As to Mercer, I received a letter from the Secretary of the Mercer County Society stating about what Dr. Steele has said, and putting Mercer on record for a whole-time Executive Secretary. I also tried to get in touch with the secretaries of the Logan County and Mingo County Societies about this, but did not go in person and my letters were not answered.

Dr. J. E. McDonald reported for Logan County that they have twenty-one paid-up members.

Second District, Dr. C. H. Maxwell: The Eastern Panhandle Society has thirty-four members, out of fifty-five doctors in the territory. The Society meets four times a year.

I have no report from Preston County.

The Grant-Hardy-Mineral Society has twenty-seven members and holds four meetings a year. The condition of the Society is good.

The Barbour-Randolph-Tucker Society has a paid-up membership of forty-six, out of sixty-eight physicians in the territory. It holds meetings four times a year. A general spirit of harmony prevails. There are several doctors from other counties who belong to this Society, and one from Maryland.

Monongalia has forty-six paid-up members this year. Eleven physicians in the county are not members. It meets twelve times a year.

Dr. Maxwell then read the following newspaper clipping giving the opinion of Judge I. Grant Lazzelle in a recent case of the prosecution of a chiropractor for practicing without license, and a motion to print this in the Journal was seconded and carried.

COURT AIRS VIEWS ON QUALIFICATIONS IN PASSING SENTENCE ON CHIROPRACTOR

Snyder Ordered to Pay Fine of $250 and Undergo Imprisonment in County Jail for Six Months—Takes Appeal to Supreme Court.

Overruling the motion to set aside the verdict and grant a new trial in the case of A. M. Snyder, Morgantown chiropractor, found guilty by a jury for practicing medicine and surgery without a state license, Judge I. Grant Lazzelle sentenced the defendant to pay a fine of $250 and undergo imprisonment in the county jail

for a period of six months. Formal motion for an appeal to the supreme court was taken and the defendant furnished bond in the amount of $500 with James H. McGrew as surety.

In overruling the motion and passing sentence Judge Lazzelle took occasion to address the defendant and the bar to considerable length on the subject.

Does Not Pass Upon Science

"It is not the intention of this court to pass upon the merits or demerits of any system of healing or practicing medicine or surgery," Judge Lazzelle stated.

"The question at issue in this instance is whether or not the law of the state has been violated," Judge Lazzelle continued. "There is no question in the mind of the court—the law has been violated and this defendant and his counsel almost in as many words admitted to the jury that the law had been violated.

Does Not Consider Law Wrong

"Whether or not the law is wrong, as has been contended in this case, is not within the power of this court to decide but incidentally it might be stated that this court does not think the law is wrong and that this defendant is right."

Continuing, Judge Lazzelle stated that the law governing the practice of medicine and surgery sets down certain specific rules which must be followed by the man who seeks the right to practice in West Virginia. It provides that he must have certain educational qualifications and must pass certain tests to show that he is fitted to deal with the ailments of the human body.

"This defendant," the court stated, "does not have these educational qualifications as he has admitted and has not passed the required test to practice in West Virginia. Hence he is certainly guilty within the eyes of the law."

Law Requires Certificate

There are laws, the court explained against carrying dangerous and deadly weapons; there are laws against making or having intoxicating liquors; there are laws against killing or robbing other citizens, and the law providing a certificate of efficiency to practice medicine is one on the statute books as well as any that have been mentioned.

There are many ignorant people brought before the court, the judge said, who have violated the law because perhaps they were not familiar with the fact that the state of West Virginia does not permit them to do certain things.

Continued to Violate Laws

"Such people," declared the court, "are more entitled to sympathy and leniency than this apparently intelligent defendant who knew he was violating the law, who continued to violate it after he had been indicted, who is now violating it and who has boasted that he will continue to violate it.

"Instead of thinking in terms of leniency, this court cannot but think in terms of the maximum penalty, yet it will not pronounce that. It will give the maximum fine of $250 and half the maximum jail sentence which will be six months to the county jail."

In closing his address, Judge Lazzelle, speaking to the defendant, told him it would be more to his credit to get qualified than to attempt to "get by" with a law violation.

Sixth District, Dr. C. A. Ray: Kanawha County has sixty-five mem-

bers. Fayette County has fifty-four members in good standing and has held two meetings during the year. Calhoun has met regularly except during the two hot months. They have very good meetings which are very well attended.

Dr. B. B. Wheeler reported for Raleigh County as follows: Raleigh County has within its borders forty-four physicians. Forty are paid-up members. They are getting along harmoniously—have had two regular meetings. They have gotten this port-graduate extension course put out by the University. There is a nurse looking after the tuberculosis situation, and she reports sixty-five cases in Raleigh County, with possibly six deaths during the year.

Dr. Linsz made the following supplemental report for Ohio County: First, the Ohio County Society is unequivocally in favor of a whole-time secretary. They meet every week and have a good attendance —anywhere from forty-five up.

Dr. C. R. Ogden reported for the Third District as follows: Since my last communication, the medical organization of the Third District has shown considerable activity and is in very good condition. Quite an increase has taken place in the membership of the various county societies and a greater interest is shown by the medical profession in the work in this district.

The Doddridge County Society has had a re-organization and has now a personnel of wide-awake and progressive officers. The society has enrolled practically all of the active physicians of the county.

Harrison County has, I think, the best society in its history, from point of membership, attendance at meetings and in general interest. A spirit of friendliness, co-operation and professionalism permeates all of its deliberations and it is doing a great deal of worth-while work.

Lewis County has a larger membership than usual, the meetings are well attended, and the profession of that county is growing stronger each year.

Ritchie County is doing good work, and with the improvement of the roads the meetings are well attended.

Upshur County Society, while not increasing much in membership is doing good work. The meetings are well attended and the profession of that county is strong.

Webster-Nicholas Society is active and the meetings are well attended. Some of the counties of the interior portions of the state, and belonging to the Third District, are yet unorganized.

There is much work to be done before the profession is organized as it should be, but with the coming of the improved roads and the better facilities for travel, I think the Third District will very shortly be completely organized. On the whole, the Third District is in the best condition now that it has ever shown, and the profession is more progressive and of higher order than at any previous period.

NEW BUSINESS

The following resolution was introduced by Dr. Walter E. Vest, who moved its adoption:

> Whereas the duties of the Secretary of the West Virginia Medical Association and of the business management of the West Virginia Medical Journal have become so manifold that a practicing physician can

not in either instance do the work justice; and

Whereas a number of other state medical societies have very satisfactorily solved this problem by uniting this work and employing a full-time lay executive secretary; and

Whereas careful study of the situation of this State Association demonstrates the necessity for such an arrangement; therefore

Be it resolved by the House of Delegates of the West Virginia State Medical Association:

(1) That a full-time executive secretary be employed at a salary to be decided upon by the Council.

(2) That the headquarters of such officer shall be at Charleston.

(3) That the duties of such officer shall be: (a) Secretary of the West Virginia State Medical Association; (b) Business manager of the West Virginia Medical Journal.

(4) That the annual dues of this Association be increased five dollars per member per annum above the present rate to meet the necessary expenses incident to carrying out this resolution.

The motion of Dr. Vest to adopt this resolution was seconded and, according to the By-Laws, the resolution was laid on the table until the next meeting of the House of Delegates.

The following telegram from Dr. J. E. Rader was read by the President:

"Will be unable to come to Wheeling, account sickness. Kindest regards and best wishes to Council and association for a very successful session."

Upon motion of Dr. Walter E. Vest, the Secretary was instructed to send a telegram to Dr. Rader, expressing sympathy and regret.

Dr. O. B. Biern moved that the House of Delegates go on record as favoring the plan of the University of West Virginia for post-graduate extension courses in medicine, which motion was seconded and carried.

The House of Delegates then adjourned, to meet Wednesday morning at 8:30 o'clock.

Wednesday, May 14
8:30 A. M.

Called to order by the President.

Dr. C. R. Ogden reported for the Council that the reports of the Secretary and Treasurer had been audited and found correct. Dr. Ogden's report was accepted.

Dr. James R. Bloss gave a resume of the financial statement of the Journal.

The resolution offered on Tuesday by Dr. Walter E. Vest, in regard to the employment of a full-time secretary and business manager, and the increasing of dues, was taken from the table, and, upon motion of Dr. C. A. Ray, was adopted, after discussion.

Upon motion of Dr. Vest, the Committee on Public Policy and Legislation was directed to seek the enactment by the legislature of a law requiring that concentrated lye be labeled poison and a law regulating the hours of female labor.

Dr. Henry offered a motion providing that any one desiring to practice medicine in West Virginia must first become a citizen, which was seconded by Dr. Dunn. This was amended as follows: That a man seeking a license to practice medicine in West Virginia must sign

a declaration of his intention to become a citizen; and was further amended to provide that, if the license be granted, the holder of it must comply with his declaration of intention to become a citizen or the license will be rescinded. The motion was carried as amended.

Dr. C. A. Ray, speaking for the Commtitee on Public Policy and Legislation, asked that the bills proposed this morning be stated in writing and put into his hands before the meeting of the next legislature.

The following resolution was offered by Dr. J. E. McDonald:

> Whereas the public have been deprived through the legislature, subjugated to the influence of the Anti-Saloon League and church members, without regard to medical necessity, of the use of whiskey, brandy and wine; and
>
> Whereas, many good citizens are compelled to evade the laws of West Virginia to acquire and get these drugs when advised by their physicians for use in their families in cases wherein the same are indicated; and
>
> Whereas, the necessity for the amendment of such laws is made wise and commendable by reason of the product secured under the potency prescribed by the U. S. Pharmacopeia, which is standard for all drugs used in the practice of medicine in the United States of America; and
>
> Whereas the same can be made available through registered druggists under adequate laws of supervision and avoid and render unnecessary the humiliating procedure of obtaining the inferior product now to be obtained and the saving of large sums of money now paid through the bootlegging route; therefore
>
> Be it resolved that the Governor of West Virginia is hereby requested to recommend and advise the next Legislature to so amend the prohibition laws of West Virginia with proper restrictions, for the sale of whiskey, brandy and wine by druggists on proper prescriptions of licensed physicians in the State.

Upon motion of Dr. Ray, the resolution was tabled indefinitely.

Dr. Littlejohn, City Health Officer of Bluefield, discussed the subject of the organization in the State Medical Association of a section on public health and preventive medicine. Upon motion of Dr. Linsz, the President was empowered to appoint a committee of three to consider the advisability of having such a section and to report to the House of Delegates on Thursday morning.

Dr. H. P. Linsz stated that Dr. Robert J. Reed had been elceted an honorary member of the State Association two years ago at Huntington, with the recommendation that he be made an affiliate member of the American Medical Association, which recommendation was not carried out because Dr. Reed had not reached the age of sixty-five. He has since attained that age. Dr. Linsz moved that the American Medical Association be now again requested to make Dr. Reed an affiliate member, which motion was seconded and carried.

Dr. J. N. Simpson, reporting for the Committee on Medical Education, submitted the following resolutions:

> Resolved, that we approve the action of the Board of Edution in 1923 when they established the four-year medical course at the West Virginia

University, and we urge upon the Budget Committee that they use every effort to provide the funds to build the hospital which will enable the clinical years to be given.

Resolved, that we approve the effort to carry post-graduate medical instruction to the physicians of the State, and urge an appropriation so that it may be done more adequately.

Dr. Bloss moved that the resolutions be adopted, which motion was seconded and carried.

The following report was submitted by Dr. Bloss for the Committee on the President's Address, and was adopted upon motion of Dr. Jeffers:

Your Committee on the President's Address desires to submit the following recommendations:

First, that the Association thank the President for his very able and instructive address on a timely subject; and

Second, that we commend to the Committee on Public Policy and Legislation his suggestion that we recommend to the State Legislature the enactment of a statute regarding the hours of work for females in West Virginia.

Respectfully submitted,
B. H. SWINT, Chmn.,
C. H. HOFFMAN,
JAMES R. BLOSS.

Dr. C. A. Ray moved that the Section on Eye, Ear, Nose and Throat be empowered to organize and elect officers for next year, which motion was seconded and carried.

A motion was offered, and carried, to send greetings to the Ohio State Medical Association, now in session. There was also a motion to send a telegram of regret to Dr. Swinn, which was seconded and carried.

Dr. A. A. Shawkey, of Charleston, said that the Journal of the American Medical Association is often found in chiropractors' offices and that they are using it in an unprofessional way, and suggested that the American Medical Association be requested to limit its distribution and circulation. This suggestion was embodied in a motion. Motion lost.

Dr. Hugh G. Nicholson moved that the American Medical Association be requested to supply blanks for application for the election of Dr. S. S. Stanton, of Charleston, and Dr. John M. McConnihay as honorary members of that Association. Motion carried.

Adjourned to meet at eight-thirty on Thursday morning.

Thursday, May 15
8:30 A. M.

Called to order by the President.

The following officers were elected:

President — Dr. G. D. Jeffers, Parkersburg.

Firse Vice-President—Dr. W. T. Morris, Wheeling.

Second Vice-President—Dr. C. B. Wiley, Morgantown.

Third Vice-President—Dr. D. A. MacGregor, Wheeling.

Treasurer—Dr. Hugh G. Nicholson, Charleston.

Councilors—First District: Dr. H. P. Linsz, Wheeling; Second District: Dr. C. H. Maxwell; Third District: Dr. John Foulk, Bridgeport; Fourth District: Dr. J. E. Rader, Huntington; Fourth District (to fill unexpired term of Dr. Jeffers): Dr. Walter E. Vest, Huntington; Fifth District: Dr. J. Howard An-

derson, Marytown; Sixth District: Dr. R. H. Dunn, South Charleston.

The President appointed the following as members of the committee to consider the advisability of establishing a section on public health: Dr. C. J. Reynolds, Bluefield, chairman; Dr. W. F. Boyers, Fairmont; Dr. Walter E. Vest, Huntington.

Dr. J. R. Bloss was reelected delegate to the American Medical Association.

Dr. H. G. Steele invited the Association to meet next year at Bluefield. Dr. Linsz moved that the invitation be accepted, but if for any reason the Mercer County Medical Society cannot entertain the Association, the meeting be held in Charleston. Motion seconded by Dr. Hugh G. Nicholson, and amended by Dr. J. E. McDonald to prvoide that the President and the Secretary be appointed a committee to investigate the situation, decide upon the place of meeting, and notify the members through the Journal. Carried as amended.

Dr. Robert A. Ashworth, retiring President, was elected as a delegate to the meeting of the Pennsylvania State Medical Association.

Dr. MacDonald moved to take from the table the resolution offered yesterday requesting amendment of the law in regard to prescribing whiskey, etc. Motion seconded. A rising vote was called for and taken, with the following result: 9 for the motion, 30 against.

By an amendment to the motion of Dr. Robert Reed, which amendment Dr. Reed accepted as the original motion, the delegates to the American Medical Association were instructed to vote bone-dry upon every prohibition measure.

Dr. Bloss introduced Dr. J. H. J. Upham, a member of the Ohio State Medical Association and a Trustee of the American Medical Association. Dr. Upham spoke as follows:

> I assure you it gives me great pleasure to be here this morning in two capacities. Yesterday afternoon just before I left Cleveland, where we are having our annual meeting (unfortunately on the same three days you are having yours), we were very much pleased to receive a telegram of greetings from your Association. Our House of Delegates empowered me to bring greetings to you in person, and I also bring greetings from the American Medical Association.
>
> In the meetings that I have attended there seems to be the one thought everywhere that men shall get what they can for the better protection and better care of the public. The keynote is not protection of medical interests nor the advancement of medical interests, but the better preparation of the men themselves. In our State, where I have been chairman for several years of our public policy committee, while we are accused very often of self interest and jealousy in trying to keep down the various cults, it is really the protection of the people in which we are interested, and it is simply that we demand that all who come in contact with the sick, all who practice the healing art, shall have at least a basic fundamental knowledge of disease and shall be in a position to give intelligent care to the unfortunate individual. That is the greatest claim we have when we come before the public, when we ask anything

of the legislature, and that is why we have succeeded so far as we have, I think.

There are many problems that confront the medical profession. The sick individual has been for so many years a gold mine for those exploiters that they resent any attempt of ours at their control. If we can insist and if we educate the people to understand that our efforts are entirely along the line of protection of the people and are devoid of self interest, it seems that we shall accomplish what we are after, at least to some extent. This works along all lines. Our opposition to the Sheppard-Towner law was based on that. In Ohio we succeeded in confining it entirely to education; the Ohio Legislature said that the money should be used entirely for education and not used for treatment. The reason why we oppose measures like the Sheppard-Towner law is not that we are opposed to needy people's receiving care but that service of this sort—the giving of free service and putting doctors on the payroll of the State—is a blow at the integrity of the medical profession and tends to lower the standards of the medical profession.

We have to work together, not only in our communities but all the way up, in our states and in the nation. It seems to me that we are in harmony at the present time, but no chain is stronger than its weakest link, and we have to have co-operation all the way down. I think the American Medical Association is realizing that more today than it ever has, and is endeavoring to get into closer touch with the individual and with the county society than it ever has before. In the last twenty-four years, since the re-organization, the members have been exceedingly busy, for there was a great deal to do, and it seemed for a while that they lost sight of that personal touch, but now it is trying to keep in touch with you, trying to tell you what it is attempting to do. I hope that as many of you as possible will attend the meeting in Chicago next month. It will be well worth while if you only see your plant there, see the building which you own, see the force you have, see the wonderful work that is being carried on in the different departments. The scope of the work will surprise you. Whenever you want information as to any secret remedy, don't hesitate to apply to the American Medical Association, or if you want information along educational lines the American Medical Association will make every effort to help you out in whatever way it can. Your legislative committee will find the new department of Dr. Woodward very helpful. That work has only recently been started, in an attempt to bring about coordination of health work throughout the country. You have probably heard that Dr. Woodward has called for a legislative conference during the meeting in Chicago, to which you have been asked to send representatives. The keynote of the whole thing and our slogan is better service to the people, and so long as we keep up that spirit and let it dominate our lives as individuals and come to the meetings and keep in touch with our fellow physicians, the medical profession will not suffer. These cults are built on the shifting sands, but the good old medical profession is built on the rock of scientific knowledge. The rain may come and the winds blow and the storms

beat upon the rock, but it will stand.

The Secretary read the following telegram from the Ohio State Medical Association:

Congratulations from your Association to this organization are received and thoroughly appreciated. The House of Delegates of the Ohio State Medical Association officially authorized Dr. J. H. J. Upham, of Ohio, a member of this body and Trustee of the American Medical Association, to convey appreciation and reciprocal best wishes to your Association in person.

The following report was read by Dr. C. J. Reynolds and, upon motion of Dr. Golden, the recommendations therein were accepted:

Your committee appointed to report on the request for the formation of a Section on Public Health and Preventive Medicine begs leave to make the following recommendations:

(1) That a Section on Public Health and Preventive Medicine be authorized to be formed in connection with the West Virginia State Medical Association when one hundred members have signified their desire to be affiliated with such section.

(2) That until such is duly organized and in position to put on a separate program two hours be given on the program of a general session of the annual meeting of the State Association to the presentation of topics pertaining to public health and preventive medicine.

(3) That a standing committee of three be appointed in the same manner as other standing committees, to be known as the Committee on Public Health and Preventive Medicine, such committee to prepare a program on this subject for the meeting of the State Association, and also to report on the progress and condition of the public health in the State to the House of Delegates at each annual meeting.

(Signed)

C. J. REYNOLDS, Chmn.,
WALTER E. VEST,
W. F. GOYERS,
Committee.

The following resolution was offered by Dr. C. A. Ray:

Whereas Providence in its wisdom has during the past year removed from our midst P. A. Haley; and

Whereas Dr. Haley for years served well and faithfully as a councilor of our Association; therefore

Be it resolved that the West Virginia State Medical Association at this time officially express their feeling of deep sorrow and their sense of great loss in the death of Dr. Haley; and

Be it further resolved that we as an Association extend our official expression of sympathy to the bereaved relatives and friends; and

Be it further resolved that this expression be spread upon our minutes and published in the Journal.

Dr. Linsz moved that this resolution be adopted and carried out, which motion was carried.

Dr. C. O. Henry, of Fairmont, offered a motion to extend a vote of thanks to the Ohio County Medical Society, the ladies of the Marshall County Medical Society, and the Scottish Rite membership, for the magnificent entertainment given, and the Hoge-Davis Drug Company for their punch and cigars, this action to be communicated to

the Scottish Rite Cathedral and to the ladies in writing. Dr. Bloss seconded this motion, and it was carried by a unanimous rising vote.

Dr. Hupp, of Wheeling, offered the following resolution, which was seconded by Dr. Golden and carried:

> That this Association endorse unreservedly the Friends of Medical Progress, which institution, under the supervision of leading surgical and medical men of this country, is defending vivisection and animal experimentation where it is legally carried on.

Upon motion of Dr. J. Howard Anderson, seconded by Dr. H. P. Linsz, the President appointed a Committee on Necroloy, which committee consists of the following members: Dr. J. Howard Anderson, Marytown; Dr. R. J. Reed, Wheeling; Dr. Chester R. Ogden, Clarksburg.

The House of Delegates then adjourned sine die.

SCARLET FEVER

By GUY R. POST, M. D.
Weston, W. Va.

Read Before the Lewis County Medical Society, December 11, 1923.

Definition: An acute, infectious disease of childhood and early adolescence, characterized by a sudden onset, vomiting, a scarlet rash, a sore throat, high fever, rapid pulse, and a marked tendency to nephritis. There are great variations in the intensity and character of the disease.

Etiology: The disease is communicated by direct contact, by fomites, or by a third person. Epidemics have been traced to infected milk. The disease is infectious from the onset until after desquation is complete. About 50% of the persons exposed develop the disease. The greatest susceptibility is between the third and sixth year, and then it diminishes with age. After fifteen Scarlet Fever is not common, but it may occur at any age. Its greatest prevalence is in the autumn, winter and early spring,—when people are much indoors, or when school is in session. One attack usually establishes immunity, and second attacks rarely occur. The specific organism is probably some form of hæmolytic streptococcus. Malory of Boston has isolated a parasite in the skin lesions, but it probably has no relation whatsoever to the causation of Scarlet Fever. Recently Drs. Dick of Chicago have produced experimental Scarlet Fever, thus making rapid strides toward the real etiology of the disease, and therefore toward the establishment of an artificial immunity.

Pathology: Macroscopic changes of the skin are not noted at necropsy. Microscopically the skin consists of dilatations of the blood and lymph channels just beneath the epidermis and of the papillæ, with some exudation. The same condition exists in the mucosæ of the pharynx, soft palate, tonsils, and also of the tongue. When the papillæ of the tongue are markedly affected, they cause microscopic enlargements. Inflammation of varying extent and intensity is seen in the throat, and, in some cases, a false membrane may be present. All the lymph glands of the neck are enlarged. The joints may show a mild, or a severe arthritis. There is more or less degeneration of the

skeletal and cardiac muscles. There may be endocarditis, pericarditis, or myocraditis. The lungs may show evidence of congestion, or a beginning bronchial or lobar pneumonia. The stomach and intestines usually show a round cell infiltration. The spleen and liver are frequently enlarged. The kidneys usually show an acute hemorrhagic glomerulo-nephritis, but in cases where death does not occur during the attack of Scarlet Fever, or shortly thereafter, they are likely to show an interstitial nephritis. In the rapidly fatal cases there may be all the evidences of a generalized septicemia.

Incubation period varies from 24 hours to 21 days after exposure. The consensus of opinion is that the period of incubation is usually short —from two to six days.

Symptomatology: There is usually a general malaise and an inaptitude for play or work for two or three days preceding the attack. The onset is sudden, usually with an attack of vomiting. The severity of the onset generally corresponds with the seriousness of the disease later on. The temperature rises rapidly, reaching its apex (104 to 105 degrees F.) on the first or second day. In uncomplicated cases it gradually returns to normal on the fourth to the seventh day. A recurrence of the fever nearly always points to some complication. The pulse is rapid, usually varying with the height of the temperature. There are headache, restlessness, nervousness, disturbed digestion, diarrhea or constipation—and there may be delirium or coma. The rash appears on the first or second day —first on the neck and chest, and thence spreads over the entire body. Occasionally the eruption is first seen in the axillæ. In consists of a more or less uniform scarlet blush, or fine punctate spots set closely together. The eruption disappears on pressure, but returns as soon as the pressure is released. It is usually punctate in the groins, axillæ and roof of the mouth. The rash lasts from three to seven days, when it gradually fades, and is followed by a desquamation lasting from two to six weeks. The exanthem may be pale and transient, or it may be miliaria—and, in severe cases, purpura. As a rule the lips are not affected. The tongue at times is almost pathognomonic—on the first day it is furred, then later the enlarged papillæ show through the white surface, giving the so-called characteristic "strawberry" tongue. Within three or four days the white disappears, leaving a red tongue with enlarged papillæ, giving the so-called characteristic "mulberry" tongue. At times the enlarged papillæ are the only tongue sign. The throat symptoms vary considerably. In mild cases there is only redness of the pharynx. In moderately severe cases there is enlargement of the tonsils, some patches of memrane, and marked congestion of the entire throat. In the severe or anginoid cases there is marked membranous angina with involvement of the pharynx and larynx, swelling of the lymph-nodes and other tissues of the neck, which may be very easily mistaken for diphtheria. Suppuration or gangrene of the throat or neck may follow. There may be a mild or a severe bronchitis associated, or there may be all the signs of a beginning pneumonia. The urine is scanty, high-colored, and often con-

tains albumin and casts. In all cases of uncomplicated Scarlet Fever and in many of the complicated ones the blood shows a leukocytosis with the neutrophilic polymorphonuclear leukocytes predominating.

Complications: These are numerous and important. There are few diseases encountered in practice that must be scrutinized as closely as Scarlet Fever for complications. Albuminuria is of very common occurrence and nephritis is also frequent. The nephritis occurs most frequently during the second or third week of the disease, or even later, and presents the usual features of Bright's disease. It may be mild or severe, and chronic nephritis may result. Otitis media is very common, and may cause impaired hearing or deafness, or may extend by continuity of tissue to the meninges, causing a meningitis. Acute endocarditis, pericarditis or myocarditis may occur. Arthritis is not an uncommon complication, and many debilitating arthritic conditions often date from a previous attack of Scarlet Fever. Inflammation of other organs and tissues are not uncommon. Furunculosis is often a wearisome feature. Pneumonia and pluerisy, with or without effusion, are not infrequent. Empyema is a frequent sequela. Enlargement of the spleen and liver may be marked. The lymph glands, especially those of the cervical region, are enlarged, and oftentimes suppurate.

Diagnosis: This is, as a rule, easy, but at times it may be very difficult, chiefly owing to the variations of the rash. When in doubt as to the rash, the entire body should be inspected, especially the groins, axillæ, back and buttock. In cases with severe throat symptoms, a negative throat and nose culture for diphtheria and the persistence of the eruption are valuable aids. The prevalence of the disease in the community will often put you on the right track. Unless you are absolutely certain of your ground, it never pays to be too emphatic about the diagnosis, for you may have to change it at a subsequent visit. It is always well to remember the many possibilities of error.

Differentiation: It is oftentimes very difficult to make a definite diagnosis of Scarlet Fever. The following conditions must be constantly borne in mind and painstakingly differentiated in order to be sure of our footing.

Acute Exfoliative Dermatitis—This eruption often recurs again and again. It resembles a Scarlet Fever very closely, having a sudden onset, a fever lasting a week or more, and is followed by desquamation. The desquamation is decidedly more marked than in Scarlet Fever—the tongue and throat are usually not involved, but the hair and nails are always prominently involved. A history of a previous attack, or better attacks, will speak for dermatitis.

Measles—Longer incubation period, the prominent catarrhal symptoms, the characteristic red papular eruption, the practically pathognomonic Koplik spots, and the leukopenia should make the diagnosis certain. The history of either disease will be a determining feature.

German Measles—The enlarged lymph-nodes, the mild or absent

throat symptoms, the characteristic polymorphous rash, and the absence of constitutional manifestations should make the diagnosis easy.

Diptheria—It is often quite difficult to tell without cultures whether one has a diphtheria with a rash, or a Scarlet Fever with a bad throat. The former is the exception, the latter is the rule. The history of exposure, a negative throat culture, and the persistence of the eruption in Scarlet Fever are of great value in arriving at an accurate conclusion.

Septicemia—There may be scarlet rashes in blood poisoning having exactly the same appearance as in a case of Scarlet Fever. Finding the focus of infection in the septicemiæ will practically always clinch the diagnosis, unless there is a simultaneous infection accompanying a true case of Scarlet Fever, in which instance a diagnosis of both affections would be the correct one. It is always well to remember that all kinds of combinations of affections may occur in the same individual at the same time.

Drug Rashes—These may follow the administration of antipyrin, quinine, belladonna, copaiba, iodides, bromides, diphtheria antitoxin, and several other drugs. There is no fever as a rule, and the rashes are transient. An intelligent history of the case will nearly always fix the attention in the right direction.

There are other diseases which must occasionally be differentiated, but those pointed out above are by far the most common as well as the most important met up with in general practice.

Prognosis: In the uncomplicated cases the prognosis is favorable, but when complications are present, it is always doubtful. The mortality varies in different epidemics. As a rule, the younger the child the higher the mortality. In the mild cases recovery is nearly always complete. In the anginoid form with marked throat and neck involvement, the prognosis must be guarded. In the hemorrhagic form where there is a purpuric rash, and where there are hemorrhages from all of the mucous membranes, death usually occurs within three or four days. In the malignant form with a very sudden onset, hyperpyrexia, and with coma (atactic variety), death usually takes place within the first two days, the patient never regaining consciousness, and dying in a convulsion. It is wise not to be too optimistic about the prognosis in any case of Scarlet Fever. It is always well to advise the parents or friends of the patient of the many unfavorable complications which may arise, and of the grave after effects which may follow.

Treatment: There is no routine treatment; every case must be individualized. The patient should be strictly isolated, and by this I mean absolute isolation. Of course it goes without saying that the disease must be promptly reported and promptly quarantined. The patient should be in bed throughout the entire attack, and in severe cases from one to two weeks afterward. The temperature of the room is of vital importance at all stages of the disease, the mild cases doing best at a temperature of 68 to 70 degrees F., the severe cases doing best at

a temperature of 55 to 60 degrees F. Tepid sponging may be used to reduce high fever when over 103 or 104 degrees F., and also to relieve sleeplessness, nervousness, or delirium. Cold may be applied to the head for headache, or to the neck for adenitis. The throat may be sprayed or gargled with normal saline solution, a saturated boracic acid solution, a solution of potassium permanganate, a weak solution of chlorazene, or other mild antiseptic. The diet should consist of milk, or milk and cereals for at least a month. By following a strict dietetic regime the cases of nephritis are reduced to a minimum. By forcing water from the start, the number of cases of pyelitis is decidedly reduced. I have found that a mixture of Potassium Citrate, Spirit of Nitrous Ether and Liquor Ammonii Acetate given in doses according to age every three hours as a routine has kept the kidneys pretty nearly normal, and thereby lessened the subsequent cases of nephritis. Later if there is a nephritis accompanied by anemia, Basham's Mixture, Liquor Ferri et Ammonii Acetatis, is substituted. Hot packs are also used to combat the nephritic condition at intervals varying in frequency from once daily to every four hours. depending on the severity, until the urine is negative for albumin and casts for four consecutive days. Under this treatment uremia seldom supervenes. If uremia does occur, the hot packs are used more heroically. Free elimination by the bowels should be maintained throughout the course of the disease. Various stimulants are given as indicated. The skin should be thoroughly cleansed once daily and anointed with equal parts of lanolin and vaselin. This facilitates desquamation and prevents the fine scales of epidermis from flying about and infecting others, which is really more important than is generally understood or appreciated by the profession.

In the last few months, there has been rapid progress in the scientific study of Scarlet Fever. Many experiments have been carried out by Drs. George F. Dick and Gladys Henry Dick of the John McCormick Institute of Infectious Diseases in Chicago, with the results that a toxin has been produced for testing the susceptibility to, or the immunity against, Scarlet Fever, as well as obtaining a definite antitoxin to be used in the treatment of the disease. Simultaneously Drs. Charles F. Branch and F. Gill Edwards of Boston, working independently but by using the same streptococcus filtrate obtained through the courtesy of Drs. Dick, have corroborated the Chicago findings with almost identical results. Others, notably Zingher, Dochez, Blake, Trask and Lynch, have done much to put the study of Scarlet Fever on a scientific basis. Therefore the future outlook for a decidedly more accurate diagnosis, a successful prophylactic inoculation and a specific treatment seem almost inevitable. The outcome of these investigations will be watched with very great interest.

139 Main Ave.

THE WEST VIRGINIA MEDICAL JOURNAL

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C. A. RAY, Charleston
HARRY M. HALL, Wheeling
} Associate Editors

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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GET BUSY

Nominations of candidates for both houses of the Legislature have been made by both political parties to be voted for in the coming fall election. Now is the time for doctors in every county in the state to interview these candidates and if possible, get an expression from them as to how they will vote on measures pertaining to public health to be presented to the next session of the legislature. Any information you may obtain in this manner, please take the time to write the same in detail to the Committee on Legislation and Public Policy of which Dr. C. A. Ray of Charleston is chairman. This information will be filed as reference to be used when the session convenes.

If you have in mind any bill you may want to introduce or any amendment to present laws on the statutes, have the same formulated and ask your representative to introduce and send a copy to the committee.

Our trouble has been that we wait too long. Your committee will do all in their power but to get results they must have the assistance and support of every progressive physician in the State.—C. A. R.

POSITION OF A STATE ASSOCIATION TOWARD LEGISLATION

"The committee on public policy and legislation of the Indiana State Medical Association, of which Dr. F. W. Gregor, Indianapolis, is chairman, has issued the following statement defining the position of that association on matters pertaining to medical legislation:

1. That all persons, classes, sects or cults, who pretend to recognize and treat human disease, shall stand equal before the law.

2. That one fundamental educational standard be required of all who pretend to recognize and treat human disease, and all should submit to the same license requirements.

3. That ONE BOARD pass on the fundamental and professional qualifications of all persons seeking a license to permit them to offer their services to the public as skilled in the recognition and treatment of human disease.

4. That the present law be so amended that it will prohibit any person engaging in practice, under any name whatsoever, which has for its purpose the recognition and treatment of human disease, until these principles have been complied with.

5. That nothing shall be written into the law which could in any way be construed as interfering with any method of treatment which any persons who had complied with these principles might wish to employ."

The above was sent to the Journal by one of the members of the State Association with the comment that it seemed to be the best attitude for a fair solution of the present-day questions of the treatment of the sick.

The opinion above expressed has always appealed to us as the advisable stand for us to take as physicians. There is no question but that we must face conditions as they are at present, not as we would wish them to be. That being the case, we should unite upon some definite policy and adhere to it.

None of us are so uninformed or ignorant as to suppose that there will be no radical health legislation presented to the next session of the legislature. Such being the case, we should begin our work now and not wait until the Legislature is in session and then begin to tear our hair and accuse this or that or the other individual of not making the strong fight he should make for or against proposed measures.

The action of the Lewis County Society, as is reported in this issue, shows that the members are already starting to work. The other societies of the State are urged to begin their activities at once along similar lines. The Cabell County Society was quite active in the primaries and will be even more so in the campaign before election time arrives.

In the meanwhile read again the above reported action of the Indiana organization. We can not but feel this the eminently fair stand for the medical profession to

take. Let us not oppose licensing anyone to treat the sick by any therapeutic procedure PROVIDED HE PROVES HIMSELF TO BE QUALIFIED. This can be determined only by examination of one board in the essential branches of the healing art. Especially is this to be emphasized, that one not qualified in the ground work is not safe to entrust with the handling of the lives of the community. Having qualified, the definite therapeutic practice of the individual treating the sick is to be left to his own judgment and discretion.

PLEASE NOTE

The large amount of material contained in the State News columns. This is the result of the first effort to carry out the plan agreed upon with a number of county society presidents and secretaries at the Wheeling meeting.

Upon reaching home from Wheeling on May 16th, the Editor immediately wrote letters to twenty-six men in various parts of the State. A self-addressed and stamped envelope was enclosed. The request was made that this envelope be placed on the physician's desk and that any newspaper clippings relating to the various physicians or matters of medical interest be put in this envelope and that it be sent to the Journal June first. Every care was taken to simplify the matter and minimize the effort required of the physicians addressed.

One man replied, sending a paper read before his society and a report of their last meeting.

Some of the letters were addressed to the very men who have found fault with this section of the Journal.

We have gone into this somewhat at length that the members may know where the trouble lies. This is but one example of the assistance and co-operation which your Editor receives, and has for eight years, from the members of the association.

One cannot but feel keenly this spirit of criticism of the matters of news interest and the scientific plane of the Journal by certain members, yet they fall down flatly when called upon to do their small bit to remedy the very conditions about which they complain.

What can be done about it?

THE CHICAGO MEETING

It is to be regretted that every member of every medical organization affiliated with the American Medical Association was not in attendance. There were in round numbers approximately nine thousand registered, by far the largest number ever in attendance at an annual meeting. This in itself gives us just cause for meditation. It means that the medical men are taking greater interest in the meetings of the parent organization.

Aside from the scientific work done in the sections, it was well worth the trip to see and go through the plant owned by us as an Association. One can not, without seeing it, appreciate on just how great a scale the American Medical Association is engaged in the printing business. You must see the building with its wonderful system of printing presses, linotype machines, hundreds of tons of paper stock, etc., to understand the magnitude of the profession's business. We could not but be impressed with the system which has

been worked out for accomplishing the vast amount of work necessary to get out the Journal alone. If each member would only inspect this building at 535 North Dearborn street, he would feel a great pride that he was a member of the profession which has built up this tremendous plant devoted entirely to the dissemination of medical knowledge.

The meetings of the House of Delegates were held in the assembly room of the A. M. A. building. This year there were many matters of importance to the profession before the House for action. Probably the importance of these questions is not sufficiently appreciated yet by the members at large, but there is no question but that it is realized clearly by the House of Delegates. The question of periodic health examinations; of the various life extension institutes; of legislation such as the Sheppard-Towner act; of the gradual drifting toward medical paternalism, on the principle of the panel practice in England, etc., etc., etc., came up for consideration.

One of the outstanding features of the meeting was the address by President Pusey to the delegates. He stated very frankly his view that the present plan of medical education consuming seven to nine years of time and costing $8,000 to $15,000 was wrong. The entrance requirements are too high and the course too long, in his opinion. Personally we are inclined to agree with him in his stand.

West Virginia was again honored by having her senior delegate Dr. Henri P. Linsz, appointed chairman of the Committee on Rules and Order of Business. This is one of the most important of the reference committees.

All of the sectional meetings and the commercial and scientific exhibits were located upon the Municipal Pier. This made it very convenient for the Fellows in attendance, since one did not have to waste a great deal of time when desiring to go from one section to another.

The commercial exhibit was complete in every detail. One was enabled to see everything used by our profession for the diagnosis and treatment of disease. It was well worth the trip to Chicago to go through this.

In the scientific exhibit one could have spent the entire week in study. Of particular interest were the pathological exhibits. Here one had an opportunity, seldom afforded, to study the specimens, both gross and microscopic. It was a post-graduate course in itself.

Another feature of especial interest in this exhibit was the work of the Division of Propaganda with its investigations of nostrums, fakers and fraudulent advertisers. This was certainly an eye-opener and I wish every physician in West Virginia might have seen it.

One would be remiss did he not mention the testimonial banquet tendered to Dr. George H. Simmons on the twenty-fifth anniversary as editor of the Journal of the American Medical Association. This was held in the Gold Room of the Congress Hotel, June 9th, at 6:30 p. m. Some four to five hundred guests were in attendance. Dr. Harvey Cushing, as toastmaster, spoke upon "Simmons in Medical Literature." He was followed in the order named by Dr. Frank Billings, "Simmons,

the Executive and Administrator;" William J. Mayo, "Simmons in Medical Education;" Mr. William O. Jones, of Lincoln, Nebr., "Simmons —The Citizen;" Dr. Hubert Work, "Simmons—An Appreciation;" Dr. William S. Thayer, "Simmons—The Man." Dr. Thayer unveiled and presented the portrait of Dr. Simmons.

It all was very impressive to listen to. There well known members of the profession paying tribute to the retiring editor of the Journal. Retiring at his request in his seventy-third year after twenty-five years spent in building the organization of our profession to its present standard.

So taken all in all, the Chicago meeting of 1924 was a tremendous success.

STATE AND GENERAL NEWS

OHIO COUNTY NEWS NOTES

HARRY M. HALL, Reporter

On Friday, May 3rd, 1924, the Ohio County Medical Society met in the Y. M. C. A. Auditorium, with Dr. John W. Gilmore as speaker of the evening, his subject being "Lower Lobe Tuberculosis."

Dr. Gilmore is worthy of mention as a type of medical man. He has been heard a good deal by this writer, and always he is the same. He is direct. No beating around the bush, no citing innumerable authorities so that if you would extract his references you would have little left. No fantastic theories, no hesitation. He auscults, he percusses, he palpates. He ascertains and then he practically and logically gives his resultant opinions. He isn't infallible of course. In his paper he consistently showed that the doctor who examines a chest and finding no tuberculosis in the aspices assumes the patient is free of it is at once doing his patient as much damage as the man who awaits a temperature before he operates on an acute appendix.

Anyone who has worked very extensively knows, as the Doctor stated, that the lower lobes can start the process as easily as anywhere else. Common sense so suggests. We know it can be near the hilum.

The Doctor then went into the various aspects of tuberculosis. What he talks about is what you can use every day with profit. It is at once what meat and potatoes are to the diet—substantial and reliable. But you know, and I know, that there are many housewives who do not know how to cook either meat or potatoes. In fact when they are very well prepared, these two foodstuffs, we are apt to get enthusiastic and remember well the hotel or restaurant that achieved the matter. Now then, there are a number of doctors who make it a point to absent themselves when T. B. is discussed; they say, "Oh, it is like meat and potatoes." They would go if some theoretical dessert was to be the topic. Well we think they miss it—as do possibly the people they treat.

Dr. Andrew Wilson, not very well,, and hinting he was almost not feeling good enough to be there, stated what amounted to the fact he would drag himself anywhere to hear Gilmore talk on tuberculosis. We believe this was sincere, and we believe it represented the feeling of the audience.

Dr. Drinkard talked at length on what an asset Gilmore was to the community because he was thor-

ough. He also dilated on the fact of not allowing women to get out of your office with just an optical examination simply because it was rather an annoyance and "a wait," to have them unharness their complicated raiment.

Dr. George Viewig was not present. This writer has the greatest admiration for George. He has one of the largest and undoubtedly best practices in the city. He is preeminently a good doctor. He is successful; he could add a great deal to any gathering. He persistently stays away from medical meetings of all kinds. He is a joyous good fellow, well liked. If any part of the State has a "Billy Sunday" in the medical profession who can come here and make George hit the sawdust trail into a medical meeting, we will see that his railroad fare is paid.

We had an election. It was just about as tame as the coming Republican Convention will be. No "Laugh-a-lots" turned up. When you see a medical society election up here any more you know we are progressing. All there is to it is the monotonous and questionable parliamentary procedure, "Move nominations be closed," after the first suggestion. So Dr. Bippus is President, Dr. Marschner is Vice-President. (By the way he is the son of the legislator who supported us last session.) Dr. Bond is Secretary, Dr. Clovis is Treasurer, and Dr. Caldwell, Dr. Morris and Dr. Sammons are the censors. You miss Dr. Henri P. Linsz from this list. Well he is too far along to be an ordinary county society officer any more.

The committee has not reported yet on the finances of the State meeting, but it is known we shall have a balance to the good. This is very satisfactory to those in charge, who will not have to levy one of those popular moves known as extra assessments.

The C. V. Mosby Company sent two thirds of their rental for a booth, although prices were sent in advance, stated that is all they would pay, and that was too much, and they would not soon forget the charge. Draw your own conclusions.

Elmer Hough, who so kindly gave us his cards during the meal at the McLure, and who not being sure of our identity, agreed that the chiropractors should have more done for them, and who when he learned our identity stated he always had a regular physician if very ill, was defeated by a big majority in the late primary, running for State Senator. Mr. Wilkin, who was successful, has not been as clear as he might be on the subject, and we will endeavor to learn where he stands.

Mr. Ambrose Habig, who was saved from a quick demise after being shot many times through the abdomen by an assassin, through the able services of Dr. Schwinn, and whom the latter had to sue to obtain his bill (details of which were given last year in this reporter's column), was overwhelmingly beaten for Sheriff. It is needless to say the doctors played a part in this. When will we ever learn our power in politics?

Dr. W. H. Bond is still in Missouri, where he went to recuperate from a fractured shoulder. We missed him very much from the State meeting. He is the old treasurer, and the new secretary of the Society.

Dr. and Mrs. Frank Hupp have gone on their annual vacation of several months to Lake George. There is something to the life of a doctor when he can do this. It is in no sense logical for any profession to make itself so complicated that its members cannot enjoy other activities and other pleasures. Dr. Hupp will still be young when many others, much younger, are laid to rest from circulatory complaints.

Dr. Linsz—whose other name is "The State Society"—is getting ready to go to Chicago. Like everybody we get up in arms at some of the rulings of "Lenine Linsz," but after all it is a comfort to know that such an astute man represents us in the "Big Tent." When it comes to making a graceful slide from one trapeze to the other, no one we know of can turn as many dexterous somersaults and land safe and sound on the other side amidst the grand hand clapping like Henri P. Linsz.

Dr. Dave Aikman is going to be married. This will make the final polishing of our genial debonair Dave, and as we must be scientific in these columns, we want to state it is a Eugenic Couple. We like to think always in terms of the future. Miss Dorothy Beans is one of Wheeling's most beautiful young women. Her father's untimely death at the time of the State meeting prevented her being in evidence at the ball, else we would have had to make no such announcement. Soberly and accurately we do wish to state they are the kind of a couple that makes all of the world love a lover. She is a lovely girl, and Dave is as good a candidate as West Virginia has for honors in surgery. We wish them well.

Dr. and Mrs. Staats are going to Chicago. Married some years, and the celebrated parents of "Mary Louise," they represent the kind of a couple the Ohio County Society sends to the A. M. A. to represent them in the matrimonial adventure.

Coming back to single doctors, not yet definitely catalogued, A. J. Goodwin is being watched. To those that were there, he is the handsome man who attracted attention at the ball dancing with the "beautiful lady in red"—more of him later.

A Chiropractor has been picked up here according to an announcement by Dr. McLain, our health officer. Whether we can duplicate Dr. Maxwell's noble performance remains to be seen. Later we learn the man left town.

Dr. Rankin has returned and taken up his work as Orthopedic Surgeon with Dr. Fulton.

The "Wheeling Clinic," Dr. Fulton's new venture, is nearing completion. A description of this will be given later.

The matter of exhibits was one of deep interest here. A good deal of comment can be made on the subject. The main feature is that these companies enabled the State meeting to a bigger success than it otherwise would have been. They did not contribute to the entertainment of the physicians as is sometimes thought by some of these companies, since this was covered, as it usually is, by an assessment of $25.00 to each member, cheerfully acquiesced in by most physicians—but they made the session the matter of bigness and completeness it held to the eye, and contributed to its being a scientific success. Will you not then, whenever you can,

see to it that you buy from them, and make them feel it was not in vain they came to your meeting?

Several firms, Lilly, Merck, Mulford and Merrill, exhibited through druggists, and while they did not pay for the booths, they loaned the exhibits. Schering and Glatz, Sharpe and Doehme, Beckton and Dickson, Horlick's Malted Milk, Hynson, Westcott & Dunning, Mead's Dextri - Maltose, French Lick Springs Hotel Co. (Pluto Water), could not find the time or could not see their way clear to make the effort. Many of the publishers not mentioned on this list did not even take the trouble to answer the invitation. This state of affairs does not hold good in the other lines of endeavor. Firms are only too glad to exhibit whether they sell or not. It pays in the long run. It was suggested to me that the medical profession easily forgets, and six months from now no one will remember. It may be so, but if the doctors in this state would be loyal enough to their Journal to patronize its advertisers first where possible, if the product was first class, we would have no blank spaces.

These are peculiar times. It is an age of blocs—we can see where the locomotive engineers are rapidly getting. Of coure I daresay as a profession we feel we are superior to such efforts. We may be, and again we may not. We all abhor blocs, but we must meet a condition, not a theory. So here is a list of those that helped you:

Department of Medical Inspection and Public Health, Wheeling Public Schools, Wheeling, W. Va.

The American Optical Co., Wheeling, W. Va.

Feick Bros Co., Pittsburgh, Pa.

Mulkey Salt Co., Detroit, Mich.

Wheeling Health Department, Wheeling, W. Va.

McLain Dental and Surgical Depot, Wheeling, W. Va.

W. B. Saunders Co., Publishers, Philadelphia, Pa.

Ohio Valley Drug Co., Wheeling, W. Va.

Lehn and Fink Co., New York.

Kalak Water Co., New York.

Engeln Electric Co., Cleveland, Ohio.

Geo. R. Taylor Co., Wheeling, W. Va.

De Vilbiss Manufacturing Co., Toledo, Ohio.

Hanovia Chemical Manufacturing Co., Newark, N. J.

Shetler's Hygrade Ice Cream, Wheeling, W. Va.

Baer's Drug Store and Peerless Drug Co., Wheeling, W. Va.

Ohio Valley General Hospital, Wheeling, W. Va.

Denver Chemical Co., Newark, New Jersey.

The Quinn Drug Co., Wheeling, W. Va.

Nujol Laboratories, New York.

H. H. Hessler Co., Cleveland, O.

Buch and Donovan Drug Co., Wheeling, W. Va.

Stone and Thomas, Wheeling, W. Va.

Schofield-Cowl Co., Wheeling, W. Va.

The C. V. Mosby Co., Medical Publishers, St. Louis, Mo.

McElroy Drug Co., Wheeling, W. Va.

White Haines Optical Co., Wheeling, W. Va.

Max Wocher and Sons Co., Cincinnati, Ohio.

The Geneva Optical Co., Cincinnati, Ohio.

Columbus Pharmacal Co., Columbus, Ohio.

Mellin's Food Co., Boston, Mass.

Victor X-Ray Co., Chicago, Ill.

Cameron's Surgical Specialty Co., Chicago, Ill.

Grains of Health Products Co., Bellaire, Ohio.

Geo. E. Stifel Co., Wheeling, W. Va.

Hoge Davis Drug Co., Wheeling, W. Va.

The following West Virginia physicians were registered at the meeting of the American Medical Association in Chicago: L. W. Blake, Ronceverte; J. R. Bloss, Huntington; A. F. Butt, Elkins; L. M. Campbell, Eskdale; Chas. H. Clovis, Wheeling; James C. Collins, Grant Town; Orva Conley, Elizabeth; Ivan Fawcett, Wheeling; Robert W. Fisher, Morgantown; F. D. Fortney, Newburg; L. R. Harless, Glen Ferris; R. D. Harman, Tunnelton; Frank C. Hodges, Huntington; Lewis H. Howard, Kingwood; Henri P. Linsz, Wheeling; C. V. Little, Sistersville; T. Judson McBee, Morgantown; W. H. McLain, Wheeling; Wm. A. McMillan, Charleston; Marshall A. Moore, Kingston; W. C. Moser, Morgantown; Howard T. Phillips, Wheeling; Barrick S. Rankin, Tunnelton; O. M. Staats, Wheeling; M. Thompson, Charleston; Hugh G. Thompson, Charleston; J. M. Trach, Fairmont; Eldon B. Tucker, Morgantown; James E. Wilson, Clarksburg; John B. Winfield, Clarksburg; Frank T. Dare, Wellsburg; M. V. Godbey, Charleston; R. A. Hamrick, Clay; Albert H. Hoge, Bluefield; B. F. Matheny, Clarksburg; B. O. Robinson, Parkersburg; Lonzo O. Rose, Parkersburg; E. Vermillion, Welch; R. H. Walker, Charleston.

COUNTY SOCIETY REPORTS

Dear Doctor Bloss:

The Eastern Pan-Handle Medical Society met in Martinsburg on June 11th. Unfortunately the weather was very bad and the attendance consequently was not good.

An unusually good and practical paper was read by Dr. C. Urban Smith, of Baltimore, on "Coprostasis." This paper will be sent for publication in the Journal when Dr. Smith has made some slight corrections.

JAS. K. GUTHRIE, Secy.

The Lewis County Medical Society met in regular session at the Weston State Hospital, Tuesday, May 13th, 1924, with Dr. W. H. Greene presiding.

The minutes of the previous meeting were read and approved.

Under unfinished business the secretary read a communication from Ira E. Smith of West Union, W. Va., who is a candidate for the nomination for State Senator in our district, in which he failed to commit himself as to his future attitude toward the passage of the Chiropractic Bill.

Dr. George Snyder made a motion that the secretary be authorized to write Ira E. Smith, asking him a definite question as to his standing on the passage of the Chiropractic Bill, also stating that the Lewis County Medical Society would not support anyone in favor of the passage of the bill.

The motion was seconded by Dr. J. G. Pettit.

The motion as seconded carried.

Under new business Dr. M. D. Cure made the following motion: That a committee of three be appointed by the president to wait on the candidates for the House of Delegates in the hope of ascertaining their attitude toward the Chiropractic Bill.

The motion as stated was seconded by Dr. George Snyder.

The motion carried unanimously.

The president appointed the following committee: Drs. M. D. Cure, S. H. Burton and Guy R. Post.

Motion: Dr. J. G. Pettit, that the secretary report this meeting to the West Virginia Medical Journal, and therein state that the Lewis County Medical Society is concerning itself definitely with the outcome of the coming election in regard to the passage of the Chiropractic Bill, and that the Society has appointed a committee to ascertain the positions of the various candidates for House of Delegates and State Senate, and that the Lewis County Medical Society will not support any one in favor of the Chiropractic bill.

The motion was seconded by Dr. O. L. Hudkins.

The motion carried.

The post-graduate course of the West Virginia University was left optional with the members of the Society.

Since the West Virginia Medical Association was already in session, a motion by Dr. George Snyder, seconded by Dr. C. C. Denham, that the petition on lye legislation be tabled was carried.

Those present, Drs. Greene, Hall, Cure, King, Denham, Pettit, Hudkins, S. H. Burton, G. M. Burton, Redwine, Lawson, Carey and Post, proceeded to the Coffee Shop, where a banquet had been prepared by the society in honor of Dr. J. C. Pettit's departure to become superintendent of the Tuberculosis Sanatarium at Terra Alta, West Virginia.

GUY R. POST, M.D., Secy.

MEDICINE AND SURGERY

THE CAUSE OF HYPERTENSION

Moschcowitz, (Archives of Internal Medicine) discusses the relationship of peripheral resistance, and especially of hypoplasia of the arterial system, to hypertension. His article is both interesting and illumating. We quote his conclusions:

1. The immediate cause of hypertension is unknown.

2. Among the remote causes, psychic factors play an important role. Evidence of this is presented in two varieties of individuals in whom hypertension is a common occurrence: (a) the "type" individual described in a previous paper, who may be summarized as the antithesis of the "child" in makeup and temperament; (b) patients with the incomplete or complete forms of exopthalmic goiter or "autonomic imbalance" in whom accumuating evidence shows that psychic and emotional factors are of importance in their causation.

3. Peripheral resistance is of importance in the causation of hypertension and its consequences, arteriosclerosis and nephritis. In the lesser circulation, this is proved by the fact that, in cases of mitral stenosis, even in young individuals, marked arteriosclerosis of the pulmonary vessels and "arterio-capillary fibrosis" (Stauung's indura-

tion) of the lung are present; while the systemic arteries in cases of general vascular hypertension show arteriosclerosis, the pulmonary vessels are free.

4. There is evidence that a congenital peripheral resistance, either in the form of congenital stenosis of the isthmus of the aorta or a congenital narrow aorta (aorta angusta), may be the cause of hypertension, arteriosclerosis and nephritis. This may account for the etiology of some cases of juvenile or presenile arteriosclerosis and nephritis and some cases of familial nephritis. —W. E. V.

INSULIN TREATMENT OF THE TOXEMIC VOMITING OF PREGNANCY

William Thalhimer, Milwaukee (Journal A. M. A., March 1, 1924), has treated three patients with severe, toxemic vomiting of pregnancy with a combination of hypodermic injections of insulin and the intravenous administration of glucose solution. The results have been striking, and parallel exactly the results in all patients with postoperative acidosis similarly treated. Thalhimer cautions that only pure, tested glucose should be used in preparing the glucose solution. A 10 per cent solution is convenient to use, as with it the patient receives a fair amount of much needed water along with the glucose. The solution should be run in slowly, about 200 to 300 c.c. an hour, and it is important that it be kept warm; 1,000 c.c. is the amount usually given at a time. About fifteen minutes after the injection is started, about 10 units of insulin is given hypodermically (i. e., 10 of the new U-iletin units). At intervals thereafter 10 units is given until for 100 m. of glucose (1,000 c.c. of 10 per cent solution) 30 units of insulin is given. One unit of insulin (U-iletin) causes the utilization of from 2 to 3 gm. of glucose, but for safety a slight excess of glucose should be given to prevent a hypoglycemic reaction of insulin shock. It is wise to have epinephrin available for hypodermic use for treatment of a hypoglycemic reaction. Up to the present, however, this has never been needed. Insulin has been demonstrated to have as rapid a curative effect on ketosis and the toxemic vomiting of pregnancy as it has on preoperative and postoperative nondiabetic acidosis. This evidence suggests that the field of insulin therapy may be extended to other nondiabetic conditions.

THE CLINICAL ASPECTS OF CUTANEOUS REACTIONS AFTER ARSPHENAMIN

Following the administration of the arsenicals arsphenamin, neoarsphenamin, silver arsphenamin, sodium arsphenamin, sulphoxylate arsphenamin and sulpharsphenamin in the treatment of syphilis, various cutaneous reactions are observed. These reactions may be classed in two main groups. Group 1 is essentially an erythemosquamous eruption, so-called arsphenamin dermatitis which is variably manifested. Group 2 is a vasomotor disturbance. The principal and most frequent reaction in this group is what is generally known as nitritoid reaction. There are other cutaneous reactions occurring after the arsphenamins which do not belong in Group 1 or Group 2. They are placed by Joseph V. Klauder, Philadelphia (Journal A. M. A., Mar. 22, 1924),

in a third group, although they are in no way related. This group includes such dissimilar phenomena as the Herxheimer reaction, purpura, herpes zoster, pigmentation, and localized, so-called "fixed" arsphenamin eruptions. Subjective cutaneous reactions following arsphenamin therapy are, notably, itching and paresthesia. Illustrative cases are cited by Klauder. He says that all of the untoward cutaneous reactions after arsphenamin therapy, with the exception of the vasomotor disturbances, are due to the direct action of arsenic. Since it is of vital importance that arsphenamin administration be withheld after the appearance of untoward cutaneous reactions, it becomes the part of wisdom to regard with suspicion any eruption appearing in the course of arsphenamin administration, particularly if it is pruritis and is erythemosquamous in character. In view of the variable individual tolerance of the syphilitic patient to arsenic, it is not practicable to carry out, as a routine, a formulated plan of treatment with the arsphenamins. The patient's tolerance to arsphenamin must first be determined before a plan of treatment can be enforced. If symptoms of intolerance are present, treatment with arsphenamin cannot be forced. Following the recovery of the patient from arsphenamin dermatitis, particularly the more severe reactions, further administration of arsphenamin should be practiced with considerable caution. In untreated syphilitic patients in the acute stage, there occurs an accentuation of the eruption within twenty-four hours after the initial administration of one of the arsphenamins. Such accentuation is noted in all patients treated with a full dose; it is less likely to occur after a smaller dose, and can be entirely avoided by the initial injection of a very small dose of the drug. With the accentuation of the eruption there may be fever and constitutional symptoms. This phenomenon is known as the Jarisch - Herxheimer reaction. Ehrlich's explanation of the Herxheimer reaction is perhaps the present conception of this phenomenon; that is, it arises from liberation of toxins resulting from the lytic action of arsphenamin on the spirochete.

LIGATION OF UMBILICAL CORD BEFORE CESSATION OF PULSATION

It is apparently an axiom in obstetrics that the umbilical cord must not be clamped or ligated until pulsation has ceased. This statement is made in almost every obstetric textbook and is passed on as a demonstrated truth. A. C. Williamson and J. V. Taylor, Boston (Journal A. M. A., April 5, 1924), offer evidence as to the fallacy of this teaching, based on careful study of 21 infants with regard to weight fluctuations. It appears that the statement of certain gain in weight by waiting for cessation of pulsation is neither true nor accurate. The weight in only four of the twenty-one cases reported went at any time to 30 gm. or more above the original gross weight. These four were in patients who had had long severe labors, with a second stage of more than an hour and terminating with difficult forceps delivery. To insure a group of infants in which the cord was clamped immediately, the authors studied twenty cesarean

section babies which were fed under practically the same conditions, breast feeding with some simple supplementary formula during the first five days. The respective weight gains are practically identical in both groups and there is no evidence for the statement that there is a deplorable lack of gain in babies in which the cord is immediately ligated.

OBSERVATIONS ON THE TREATMENT OF SCARLET FEVER WITH SCARLATINAL ANTI-STREPTOCOCCIC SERUM.

Francis G. Blake, James D. Trask Jr., and John F. Lynch, New Haven, Conn. (Journal A. M. A., March 1, 1924), say that a clinical trial of an antiscarlatinal serum prepared by Dochez by the immunization of a horse with the scarlet fever streptococcus has shown that this serum possesses the capacity to blanch completely and permanently the exanthem in a local area about the site of intracutaneous injection in patients with scarlet fever. That this is a specific property of the serum is indicated by the negative control tests with normal horse serum and with a polyvalent anti-streptococcus horse serum. Failure of the serum to produce any blanching in cases of erysipelas supports this view. Although further control tests in patients with other than scarlatinal rashes must be made before a final conclusion can be drawn, it seems probable that an intracutaneous injection of the serum will be a specific diagnostic test for scarlet fever. In addition to its probable diagnostic value, the serum would appear to possess very marked curative properties. In twelve early cases of scarlet fever, five of which were severely toxic, administration of the serum has been followed by rapid and complete recovery within from twelve to thirty-six hours. In all but the two most severe cases, a single intramuscular injection of from 40 to 60 c.c. of serum has sufficed. In the two extremely toxic cases, approximately 200 c.c. was required. Whether the serum will prove to be of value in late cases with septic complications remains to be determined. In the one case of this kind in which the serum has been tried, a single injection of 40 c.c. had no beneficial effect on the complications, even though it brought about a temporary disappearance of the exanthem.

DRUG ADDICTION

This article by Charles E. Sceleth and Sydney Kuh, Chicago (Journal A. M. A., March 1, 1924), is based on the experience of the last twenty years, during which time more than 5,000 patients addicted to morphinism were treated. None of these patients suffered from an organic disease that necessitated the continuance of the drug. In all instances the narcotic was withdrawn in less than two weeks' time, with no special preparation of the patient before beginning treatment. Withdrawal of the drug was sudden in every case without resorting to scopolamin in doses sufficient to produce delirium. There were no acute withdrawal symptoms, drug psychoses or serious asthenic symptoms. The total number of deaths from all causes in these addicts was six. There were no deaths due to withdrawal of the drug or treatment. These patients were no more trouble than any other patients

when they actually knew that nothing they could do or say would produce for them another dose of morphin. Opium smoking and the taking of opium by mouth have almost disappeared. Cocain and heroin will produce a psychosis more quickly than morphin, and their manufacture could be prohibited without therapeutic loss. Seventy-five per cent of the authors' private patients are physicians, and almost every one of them believed that he could use the drug carefully without developing an addiction, and was surprised and panic stricken when he found that he could not discontinue its use. It is urged that every class of medical students should receive some instruction in habit-forming drugs. The most available drug in a locality determines the nature of the majority of addictions in that community. In the South, most of the negro users are cocain habitues. Heroin is the common drug in New York. The underlying causes of narcotic addiction lie in the personalities of the individuals. Each addict uses a narcotic for a reason or cause that is sufficient to himself. The nature of the disorder that impels him to use narcotics is mostly psychologic, and not physiologic or pathologic. Whatever the reason for the addiction, the end-results are the same. The continued narcosis locks up the secretions and excretions of the body, and catabolic products and intestinal fermentation produce a mixed toxemia. When an attempt is made to stop the use of the drug, pathognomonic withdrawal symptoms appear. There is no danger of death when the addict is in fair condition. The drug can be withdrawn abruptly in severe illnesses without the patient's knowledge, or a rapid reduction can be made, going from 1 or 2 grains to nothing in three or four days. The asthenic symptoms which follow the detoxication are due to the nervous exhaustion following the long period of continuous narcotization of the nerve cells. The authors have never seen an infant born an addict because the mother was an addict. They have never seen morphin addiction in children except a moderate craving induced in the very young by too frequent administration of paregoric. The desire for the drug after detoxication and subsidence of asthenic, symptoms is in the mind only, and is not based on any physical or chemical need. The fault lies in the addict's mind; and successful treatment is directly proportional to relief of the neurosis. The withdrawal symptoms experienced in chronic caffein, tobacco and alcohol users, which are promptly relieved by a renewed dose of the accustomed poison, are the same as, only milder in form than, the abstinence symptoms encountered in drug addiction. The solution of the drug evil does not rest on the administration of any specific cure, but rather on the removal, where possible of the underlying causes for which the drug addiction is merely an expression. These causes vary in individual cases. It is not a mass problem. The craving for narcotics is not a purely physical need, but is chiefly mental and can be replaced by some other great desire. In the normal or nearly normal narcotic user who has acquired the habit through physical disease or discomfort which no longer exsits or can be eradicated, a permanent cure can

be expected, if the patient is sincere and willing to stand the mental and physical stress that is part of life's conflicts without resorting to narcotics. There is only one measure that will prevent a relapse and that consists in making the drug unobtainable.

COMPARATIVE VALUES OF MAGNESIUM SULPHATE AND SODIUM CHLORID

The value of hypertonic salt solution for the relief of intracranial tension has been well established. It has been found to be indispensable for the treatment of cases in which cerebrospinal pressure is increased, owing to acute or chronic lesions within the cranial cavity. Magnesium sulphate and sodium chlorid solutions, by bowel, for the relief of intracranial tension have been used in Dr. Charles H. Frazier's clinic for the last two years and the results of such use are reported on by Temple Fay, Philadelphia (Journal A. M. A., March 8, 1924). They come to rely on the use of magnesium sulphate in preference to that of sodium chlorid excepting only in cases in which the tension of the brain, during operative procedure, necessitates immediate reduction of brain volume. Here the injection of 100 c.c. of 17 per cent sodium chlorid solution, by vein has been found to be prompt and effective in bringing about relief of the tension in almost every case. The use of magnesium sulphate for the purpose of dehydration has been shown to be almost twice as efficient as sodium chlorid, and obviated the danger of a secondary wave of tissue edema due to temporary salt retention. The respiratory rate is the best clinical guide to the degree of intracranial tension. If overdehydration is possible, as seemed evident in two of our cases, then any degree of intracranial pressure may be controlled by sufficient use of magnesium sulphate, and the disfiguring operation and added risk of subtemporal decompression for relief of pressure becomes unnecessary in cases of acute cerebral tension.

AN ANALYSIS OF SEVEN HUNDRED CASES OF MENTAL DISORDER AND MENTAL DEFECT

A summary of two years of community service work by the Danville State Hospital, is submitted by J. Allen Jackson and Horace Victor Pike, Danville, Pa. (Journal A. M. A., April 5, 1924). In attempting to reach and help those mentally afflicted, there have been three avenues of approach, through (1) direct contact with the individual patient, including the supervision and direction of patients furloughed from the hospital to the community; (2) the medical profession of the hospital community, and (3) the various civic philanthropic and educational organizations. For the carrying out of this extensive and comprehensive program of preventive mental medicine, a community service department was organized, the immediate direction of which was placed in the hands of the director of clinical psychiatry, to whom was assigned one social service worker. Plans were formulated to reach the 650 physicians scattered throughout the hospital district. Papers dealing with mental disorder and mental defect were presented in a simple and practical manner before the various county medical societies. The physicians

were given to understand that the mental health clinics, together with the services of the hospital staff, were at their disposal for the purpose of helping them in the matter of diagnosis and advice as to treatment. Quarterly neuropsychiatric clinics were held at the hospital. Teachers of neurology and psychiatry were secured as features of the program, who, assisted by the physicians of the hospital, presented, not rare and obscure cases for diagnosis, but the type of patients encountered day after day in private practice. As a result, the hospital has come to be known as a center of practical help; the extramural clinics are having referred to them week after week cases for study; the family physician is treating in the home types of patients that were formerly committed to the hospital. Mental health committees were organized in the various communities, Kiwanis, Rotary, round table and civic clubs were addressed on questions pertaining to the preservation of mental health and the prevention of mental disease, courses of lectures on abnormal psychology and mental hygiene as related to the teachers of the public schools were delivered at one of the large state normal schools, clinics were arranged for students and teachers, and, up to the present, 1,800 normal students and teachers have been reached. At a clinic given a few months ago at the hospital, 500 attended. Lectures on nursing in mental diseases were delivered before classes of nurses in training in general hospitals; quarterly mental health bulletins were issued; the articles dealing with the prevention and extramural treatment of mental conditions were prepared by prominent psychiatrists, heads of bureaus of the departments of public welfare and members of the hospital staff and circulated throughout the hospital district to physicians, overseers of the poor and social workers. Gradually the seed thus sown began to sprout; physicians, nurses and social workers volunteered their services for clinic work. The department of public welfare provided the services of a field representative for assistance in psychometric examination; funds were provided by community chests and welfare federations; and the clinic at Wilkes-Barre, organized in April, 1922, boasts of a full-time psychiatrist, and within a few months is to have added a full-time stenographer and social service worker. Thus, within two years the attitude of the community toward the mentally afflicted has changed, patients are brought with a view of determining the causes for their social inefficiency, the judges of courts are recognizing the relation between mental disease and delinquency, and the idea of prevention and rehabilitation, rather than commitment or incarceration, is fast spreading. While the first clinic is now but 2 years old, and the last to be organized is but 3 months old, consultations during the last six months have averaged 125 a month, and during the two years 700 new patients have been examined.

Analysis of these cases leads the authors to infer that: (A.) In public schools there are many children whose failure to keep abreast of their studies and progress with their fellows is attributed to feeblemindedness, and in whom mental examination reveals the fact that they

possess a degree of intelligence sufficient to permit their doing good work, often in advance of the grades in which they are placed. (B.) Fully one half of the children whose adjustment in the schoolroom is faulty owe their failure of adaption to physical and environmental factors, the correction of which will be followed promptly by a definite change for the better, and in many instances bring about a perfectly normal environmental adjustment. (C.) The present method of school grade classification is inadequate so far as it fails to provide for scientific study of the mental functioning of its individual pupils. (D.) While the state hospital, in discharging its obligations to the community, is glad to study the problems of children and of adults alike, it would be a physical impossibility to attempt the neuropsychiatric examination of every school child within its district; as at least 50 per cent of cases seen in mental health clinics are children in attendance at public schools, it should be incumbent on departments of education to include in their organization a bureau of neuopsychiatry in charge of a neuropsychiatrist experienced in the handling of children, under whose direction there should be provided adequate personnel and equipment for the complete mental examination of every child attending the public schools, and intensive study of each individual problem case. (E.) Mental examination and personality studies of children of preschool age should be stressed, with a view to correction of faulty habit formation in the early years of life, and in this work the community service department of state hospitals will find a very useful field of activity. (F.) While a large percentage of juvenile delinquents, and especially sex offenders, are psychopathic personality or defective mentally, and there is an urgent need for segregation of many of these cases, it should not be lost sight of that the results of mental examination often yield unexpected findings, and many of these patients, when understood and intelligently handled, can be helped to social adjustment and economic efficiency. (G.) Active cooperation between state hospitals for mental diseases and the community will reduce the annual number of patients requiring hospital care, and increase the number who after hospitalization will adequately adjust themselves and remain mentally well.

EFFECT OF OIL ON MOSQUITO LARVAE

In the antimosquito campaigns that have come to occupy an important place in the sanitary aspects of public health activities, the ideal procedure involves the destruction of the mosquito by the elimination of its breeding places. For a variety of more or less obvious reasons, this cannot always be satisfactorily carried out. Ponds and marshes cannot always be drained on the scale that local conditions here or there may necessitate. Consequently, the method of destroying mosquito larvae in the breeding places has found widespread employment. The application of a film of oil on the water in which the larvae live was recommended about thirty years ago, and is the procedure at present most commonly employed, especially for use on a small scale. The choice

of oil to be used for such work depends on a variety of considerations. Heavy grades do not spread easily; light oil tends to evaporate quickly and thus lose their efficacy; in many instances, relative costs need to be taken into consideration. In addition to these aspects of the subject, the choice of anti-mosquito oils ought, perhaps, to be modified in harmony with the mode in which the chemicals act. The commonly accepted assumption is that when the larvae rise to the oil-laden surface to obtain air through their breathing tubes or pores, the latter become plugged by a tiny bit of oil, and the larvae drown. H. W. Green, ("The Effect of Oil Upon Anopheles Mosquito Larvae, Am. J. Hyg. 4:12, Jan. 1924), has pointed out that, in addition to suffocation, the toxic properties of many oils used may have special merit in antianophelene work. Indeed, he has found by direct experimental tests that the volatile portions of some of the products commonly used penetrate the tracheal tissues of the larvae and thus develop poisonous effects. The rapidity with which exposed larvae die may thus be dependent on both intoxication and suffocation, on chemical and physical factors. This discovery will doubtless find recognition hereafter in the choice of oils for the attack on the mosquito. Experiment is reinforcing empiric experience in this important undertaking. The facts are timely, for the mosquito will soon be with us again in the northern countries.—Jour. A. M. A., March 18, 1924.

RHEUMATISM: ITS MANIFESTATIONS IN CHILDHOOD TODAY

The material studied by Eugenia Ingerman and May G. Wilson, New York (Journal A. M. A., March 8, 1924), consisted of 185 patients who have been under observation for a period averaging three years. Of the 185, 71 per cent were girls, and 29 per cent boys. One hundred and seventy-three of the patients were between the ages of 5 and 14; ten between 3 and 5, and only two below 3. It is of interest to note that rheumatism occurs in the very first few years of life, and that it makes its earliest appearance most frequently from 4 to 9 years of age, reaching a high maximum at 5. The earliest onset of this series was at 1½ years of age. The smallest percentage of rheumatism occurred in the districts lying farthest from the river fronts, with a progressively increasing percentage in the districts approaching the river fronts. Thirty-one per cent of the rheumatic manifestations occurred in winter, 33 per cent in spring, 29 per cent in summer, and only 7 per cent in the fall. The familial tendency of rheumatism is indicated by the fact that 40 per cent of the patients had rheumatic parents, and 28 per cent rheumatic brothers and sisters. Growing pains, joint pains and myostitis were noted in 78 per cent of the children. Tonsillitis and sore throat occurred in 77 per cent. Rheumatic fever occurred in 56 per cent of the cases, and recurred from two to six times in two fifths of them. Cardiac valvular disease was present in 69 per cent of the cases. The remaining 31 per cent were potential cardiac patients; that is, cases with a his-

tory of rheumatic manifestations, but without any involvement of the heart. Of the 69 per cent, 17 per cent were potential patients who developed valvular lesions while under observation. Sixteen per cent of the cases developed a frank carditis under observation. Chorea occurred in 34 per cent of the cases, and recurred from two to four times in half of that percentage. Skin manifestations were apparent in 8 per cent. Subcutaneous nodules were present in 11 per cent. Epistaxis was found in 11 per cent. These cases fall into four groups. Of the 185 patients there were: (1) Eighty-five with sore throat, arthritis and cardiac involvement. In this group there were eight cases of nodules. (2) Twenty-six with chorea, sore throat, arthritis and cardiac involvement, among which were seven cases of nodules. (3) Fifteen with chorea and cadriac involvement alone, with one case of nodules. (4) Fifty-nine potential cardiac patients, nineteen with chorea and thirty-five without chorea. In this group were five cases of nodules. Four per cent of the cases were fatal. In this group were seven girls and one boy. Three of these cases presented nodules. Two were fulminating first attacks, one occuring at 9 years of age, the other at 20 months. Six were virulent terminal infections following previous attacks with recovery. Tonsillectomies were performed in eighty-eight of the cases. In seventy cases the tonsils were entirely enucleated, while in eighteen cases small tabs were left. Rheumatic manifestations recurred in sixty-seven cases, at intervals of from one to eleven years after the tonsillectomy. In eighteen of these, incomplete tonsillectomy was done, and recurrences occurred in fourteen cases. Among these there were twenty-eight cases of rheumatic fever, eighteen cases of chorea, sixty cases of recurring growing and joint pains, and thirty-one cases of sore throat. Cardiac involvement occurred after tonsillectomy in twenty-two cases, and in four of the eight fatal cases of carditis, tonsillectomies were performed two years or more before death. In fourteen cases, tonsillectomies were performed from two to six years before the onset of rheumatic manifestations. The remaining twenty-one cases were followed by no rheumatic manifestations; in two thirds of these, tonsillectomy was performed within the last two years. Of the eighteen cases in which incomplete tonsillectomy was performed, there was no recurrence of rheumatic manifestations in four. A comparison of the incidence of rheumatic manifestations in ninety-seven cases in which tonsillectomies were not performed, observed during a similar period, showed recurrences in seventy-eight, and no recurrence in nineteen. Of twenty-five cases in which there had been the most severe rheumatism during the past year, tonsillectomy had been performed at least two years before in twelve. Five patients in the series showed most marked general improvement after tonsillectomy. Eight of these had suffered previously from severe tonsillitis, and two had been markedly underweight. The authors conclude as follows: The general progress in preventive medicine and hygiene in the last twenty-five years has not

seemed to influence the clinical course of rheumatism as we see it today.

CHLORIN AS A THERAPEUTIC AGENT IN CERTAIN RESPIRATORY DISEASES

The value of chlorin as a therapeutic agent was investigated by Edward B. Vedder and Harold P. Sawyer, Edgewood Arsenal, Md. (Journal A. M. A., March 8, 1924), in the bacteriologic laboratory and clinically. A concentration of approximately 0.015 mg. per liter of chlorin was used. Most of the patients received a single treatment of one hour. A few received a second or even a third treatment on succeeding days. While the majority of patients were cured or improved by one treatment, many require several treatments. There seems to be little doubt that such chlorin treatment will completely abort a cold when taken sufficiently early, and in well developed cases it affords great relief. Acute bronchitis is practically always relieved. There is more difficulty in treating "head colds," because the swelling of the mucous membranes stops the air passages and prevents free access to the chlorin. In a number of cases, the nose was first treated by the authors with epinephrin, in order to shrink the mucous membranes and obviate this difficulty. They are inclined to believe that chlorin will be as effective in the treatment of influenza as it is in the case of the common cold. In whooping cought chlorin apparently is distinctly curative. Children who had had numerous daily paroxysms followed by vomiting, and were losing weight, after one or two treatments ceased to vomit, and the paroxysms were greatly reduced in number and force. Two cases were in adults and were undoubtedly cured, as the paroxysmal coughing ceased entirely following several treatments. It also seems probable to the authors that inhalation of chlorin will prove useful in many other conditions that they have had no opportunity to treat. An apparatus is described that is said to render this treatment available for trial by any physician.

PNEUMONIA SIMULATING APPENDICITIS IN CHILDREN

The acute onset of pneumonia with few or no clinical symptoms may simulate acute appendicitis, especially in children. Abdominal symptoms of pain, tenderness, rigidity and distention may be present as in the cases cited by Paul A. White, Davenport, Iowa (Journal A. M. A., March 1, 1924). Difficulties in diagnosis are multiplied because of the tender age, lack of intelligence, or fear on the part of the patients. A severe chill at the onset, temperature over 102, and a leukocyte count near or over 20,000, should engender extreme caution and intensify efforts at differentiation. A careful urine examination should always be made.

PITUITARY STANDARDIZATION

Why standardize gland extracts when only the glands of healthy animals are used, and when, moreover, a definite routine is employed in the manufacture of the extracts so that only certain soluble substances are present in the finished

product? Are not the normal glands altogether normal? Do they not yield a definite percentage of active principle?

The answer is that all animal glands are apt to vary in their content of active principle, since all are miniature laboratories engaged in meeting only the demands of the organism at the time.

Pituitary extract, called Pituitrin by the discoverers, Parke, Davis & Co., is assayed by two methods, one of which indicates its pressor (arterial tonic) power, the other its effect upon uterine tissue (its oxytocic activity). Being used principally in obstetric practice, the oxytocic test is considered very important, although oxytocic activity could be very reasonably inferred from a demonstration of the action of the extract on the unstriped muscle of the arteries.

Accuracy is absolutely essential in a drug so powerful and of such crucial importance as Pituitrin, and for this reason both tests are applied.

NEW AND NON-OFFICIAL REMEDIES

Patch's flavored cod liver oil.—Cod liver oil containing 0.5 per cent of essential oils as flavoring, and having a vitamin potency so that 0.002 gm. per day is adequate to promote the growth of young albino rats. For discussion of the actions and uses of cod liver oil, see Useful Drugs. The dose is not more than 4 c.c (1 fluidrachm) 3 times a day. For children not more than 2 Cc. (30 minims) 3 times a day. E. L. Patch Co., Boston.

Vitalait culture bacillus acidophilus.—A pure culture of Bacillus acidolphilus in vials each containing about 7 Cc. It contains not less than three hundred million of viable organisms (B. acidolphilus) per cubic centimeter at the time of sale. For a discussion of the actions and uses of cultures of B. acidophilus, see Lactic Acid-Producing Organisms and Preparations, Jour. A. M. A., Sept. 8, 1923, p. 831. The usual dosage is the contents of one vial diluted with water and followed by a quantity of sugar of milk. The culture is distributed by the manufacturer only and is sent by mail. The Vitalait Laboratory of Californit, Pasedena, Calif. (Jour. A. M. A., March 1, p. 717).

Apothesine.—Diethyl-amino-propyl cinnamate-hydrochloride. Apothesine is a local anesthetic of the procaine rather than the cocaine type, that is, it belongs to that type which, while effective for injection anesthesia (especially when combined with epinephrin), is relatively inefficient when applied to mucous membranes. It is rather slower in action than procaine. Its absolute toxicity is less than that of cocaine, but about twice that of procaine. It is employed for infiltration injection, nerve blocking, intraspinal injection, pressure anesthesia, oral administration as a palliative measure, for post-operative and persistent vomiting and pain of gastric ulcer. As a local anesthetic, apothesine is used in 0.5 to 2 per cent solution, generally with epinephrine and sterile water or psysiological solution of sodium chloride. Apothesine is marketed in

substance and also in the following forms: apothesine solution 1.5 per cent; apothesine hypodermic tablets 0.08 gm; apothesine and adrenalin hypodermic tablets (apothesine 0.04 gm, adrenalin 0.00004 gm.); apothesine and adrenalin hypodermic tablets (apothesine 0.3 gm, adrenalin 0.0003 gm); apothesine and adrenalin hypodermic tablets cylindrical (apothesine 0.01 gm, adrenalin 0.000025 gm); apothesine ointment (apothesine 10 per cent, adrenalin 1:60,000, and menthol 0.5 per cent). Parke, Davis and Co., Detroit (Jour. A. M. A., March 8, 1924, p. 793).

Butesin picrate. — Trinormalbutylparaminobenzoatedinitrophenol. —A compound consisting of one molecule of trinitrophenal (picric acid) and three molecules of normal butyl ester of 4-aminobenzoic acid. Butesin picrate combines the anesthetic action of butesin with the antiseptic properties of trinitrophenol (picric acid). An aqueous solution of 1:1,400 produces immediate and complete anesthesia of the eyes which lasts from ten to twenty minutes. Butesin picrate is used in the treatment of burns, ulcers and other denuded, painful lesions of the skin. For use, a one percent butesin ointment is supplied by the manufacturer. The Abbott Laboratories, Chicago.

Normal horse serum.—A normal horse serum (see New and Nonofficial Remedies, 1923, p. 281), marketed in packages of one syringe containing 10 Cc; also in packages of one syringe containing 20 Cc. United States Standard Products Co., Woodworth, Wis. (Jour. A. M. A., March 15, 1924, p. 876).

Dibromin. — Dibromobarbituric acid.—Dibromin is an antiseptic and germicide proposed for use in solution as an irrigating fluid and wet dressings, for flushing cavities, irrigatng infected wounds and for saturating gauze packings. Dibromin is claimed to be practically free from irritating or toxic properties in the concentrations required for therapeutic use. Solutions of 1:10,000 (6 grains to one gallon) or stronger are used. Dibromin is marketed in six grain capsules. Parke, Davis and Co., Detroit.

Acne vaccine.—An acne vaccine (see New and Nonofficial Remedies, 1923, p. 302) marketed in packages of one 10 Ccs. vials, each Cc. containing 40 million killed bacteria. United States Standard Products Co., Woodworth, Wis.

Gonococcus vaccine.—A gonococcus vaccine (see New and Nonofficial Remedies, 1923, p. 304), marketed in packages of one 10 Cc. vial, each Cc. containing 1,000 million killed gonococci. United States Standards Products Co., Woodworth, Wis.

Pertussis (Whooping Cough) vaccine.—A pertussis bacillus vaccine (see New and Nonofficial Remedies, 1923, p. 306), marketed in packages of one 10 Cc. vial, each Cc. containing 3,000 million killed pertussis bacilli. United States Standard Products Co., Woodworth, Wis.

Typhoid vaccine. — A typhoid vaccine (see New and Nonofficial Remedies, 1923, p. 314), marketed in packages of three 1 Cc. vials, containing 500 million, 1,000 million and 1,000 million killed typhoid bacteria, respectively. United States Standard Products Company, Woodworth, Wis.

Typhoid paratyphoid vaccine (combined). — A typhoid vaccine (see New and Nonofficial Remedies,

1923, p. 314) marketed in packages containing 500 million killed typhoid bacteria, 375 million killed paratyphoid A and 375 million killed paratyphoid B bacteria, the second and third doses each containing 1,000 million killed typhoid bacteria, 750 million killed paratyphoid A bacteria and 750 million killed paratyphoid B bacteria. United States Standard Products Co., Woodworth, Wis. (Jour. A. M. A., March 22, 1924, p. 967.)

Staphylococcus combined vaccine.—A staphylococcus vaccine (see New and Nonofficial Remedies, 1923, p. 310), marketed in packages of one 10 Cc. vial, each Cc. containing 1000 million killed Staphylococcus albus and 1000 million killed Staphylococcus aureus. United States Standard Products Co., Woodworth, Wis.

Streptococcus vaccine.—A streptococcus vaccine (see New and Nonofficial Remedies, 1923, p. 312) marketed in packages of one 10 Cc. vial, each Cc. containing 400 million killed streptococci. United States Standard Products Co., Woodworth, Wis.

Acne vaccine combined.—A mixed bacterial vaccine (see New and Nonofficial Remedies, 1923, p. 318) marketed in packages containing one 10 Cc. vial, each Cc. containing 40 million killed acne bacilli and 1000 million killed Staphylococcus albus. United States Standard Products Co., Woodworth, Wis.

Diphtheria antitoxin, refined and concentrated.—A refined and concentrated diphtheria antitoxin (see New and Nonofficial Remedies, p. 283), prepared according to a modification of Banzhaf's method, marketed in syringes containing 1000, 3000, 5000, 10000 and 20000 units, respectively. United States Standard Products Co., Woodworth, Wis.

Diphtheria toxin-antitoxin mixture, O.1L.—A diphtheria toxin-antitoxin mixture (see New and Nonofficial Remedies, 1923, p. 284) each Cc. constituting a single dose and marketed in packages of 3 vials, each containin 1 Cc.; in packages of 30 vials each containing 1 Cc., and in packages of one vial containing 30 Cc. United States Standard Products Co., Woodworth, Wis.

Diphtheria toxin for Schick test and control.—A diphtheria immunity test (see New and Nonofficial Remedies, 1923, p. 323), marketed in packages containing a vial with undiluted diphtheria toxin and physiological solution of sodium chloride for dilution. As a means of control there is also supplied diphtheria toxin which has been heated to destroy the exotoxins. The product is marketed in packages containing an amount sufficient for fifty tests; also in packages containing an amount sufficient for one hundred tests, but the strength of the toxin is such that the dose is 0.1 Cc. United States Standard Products Co., Woodworth, Wis.

Tetanus antitoxin.—A concentrated tetanus antitoxin (see New and Nonofficial Remedies, 1923, p. 284), prepared according to the Banzhaf method. Marketed in syringes containing 1500, 5000 and 10000 units. United States Standard Products Co., Woodworth, Wis. (Jour. A. M. A., March 29, 1924, p. 1047.)

PROPAGANDA FOR REFORM

Citrophan.—This is a "fat cure" exploited to the medical profession

and the public by the Gotham Corporation, New York City. The only statement bearing on the identity of Citrophan which is made is the claim that it is "a new organic iodin compound." The claims made for Citrophan are many and various, back of all of them is the fundamental thesis: "Science has found that the chief cause of obesity lies in the development of alcohol in the digestive tract brought about by the action of yeast bacteria—taken into the stomach in improperly baked bread—and on raw fruits and vegetables." This claim is unsupported by scientific work. The A. M. A. Chemical Laboratory reports that Citrophan is sold in the form of tablets ranging in weight from about 4½ grains to more than 7 grains. Analysis indicated that the chief medical ingredient was tetraiodophenolphthalein. Sugar of milk, starch, vegetable tissue and traces of an acid insoluble substance (probably talc) were found; also two per cent of an unidentified organic substance. Quantitative determinations showed the composition of Citrophan to be: tetraiodophenolphthalein 40 per cent, sugar of milk 52 per cent, ash (including talc) 3 per cent, starch and undetermined 5 per cent. About twenty-five years ago, tetriaodophenalphthalein, the chief medicinal ingredient of Citrophan, was exploited under the name of "Nosophen" as an external and internal antiseptic. It has never attracted much attention in this country. Fangarine is sold (in the form of tablets) along with Citrophan. These the A. M. A. Chemical Laboratory found to contain phenolphthalein as its medicinal ingredient. It is evident that Citrophan is not a new discovery as claimed, and there is no evidence that Citrophan will reduce weight, except perhaps by disturbing the digestive functions. (Jour. A. M. A., March 1, 1924, p. 734.)

Mistura Creosote Comp. (Killgore's) and Tablets Cascara Comp. (Killgore's). — The Council on Pharmacy and Chemistry reports that these products were found unacceptable for New and Nonofficial Remedies. Mistura Creosote Comp. (Killgore's) is marketed with the claim that each teaspoonful contains two minims of creosote "combined with Tonic Aromatics," but the identity and amount of the "Tonic Aromatics" is not declared. The Council declared the preparation in conflict with the rules that govern the acceptance of articles in that it is a mixture of semisecret composition which is marketed with unwarranted therapeutic claims and in a way that may lead the public to depend on it for the self-treatment of serious diseases. Tablets Cascara Comp. (Killgore's) are said to have the following composition: "Ext. Cascara 2 grs.; Podophyllin 1-8 gr.; Ext. Belladonna 1-16 gr." The tablets were found in conflict with the rules that govern the acceptance of articles. The product is marketed under the name which is not descriptive of its composition in that the name indicates that it is a cascara preparation, yet the most active constituent is resin of podophyllum; the product is marketed with unwarranted therapeutic claims and the composition of the tablets is unscientific because there is no evidence that a therapeutic dose of extract of belladonna is useful with a suitable dose of resin of podophyllum or of ex-

tract of cascara sagrada. (Jour. A. M. A., March 8, 1924, p. 812.)

Sodium Morrhuate in Tuberculosis.—Sodium morrhuate is the sodium compound (soap) of the fatty acids obtained from cod liver oil. Its use in tuberculosis has been advocated, but like other preparations proposed for the treatment of this disease, it has not been shown to have value. The reported trials make its lack of value probable. Sodium morrhuate has not been admitted to New and Nonofficial Remedies. (Jour. A. M. A., 1924, p. 813.)

The Rectal Administration of Arsphenamin. — The intravenous administration of arsphenamin requires some skill, especially in children and in the obese in whom the veins are not readily accessible. Attempts have been made, therefore, to develop other methods of securing the effects of the drug. Among these, rectal administration has found most advocates. Manufacturers, ever seeking novelties have used favorable reports to market suppositories of arsphenamin. In 1920, the Council on Pharmacy and Chemistry published a report on supsalves stating that the evidence for the rectal administration of arsphenamin was distinctly unfavorable. At present the medical profession is being circularized by the Swan-Myer Company in an endeavor to popularize the rectal administration of arsphenamin in the form of suppositories sold as arsphenoids. It is opportune, therefore, that Littman and Hutton, at the request of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry, present a critical review of the literature and the result of clinical trials of the rectal use of arsphenamin. Since most advocates of the rectal administration of arsphenamin stress its importance in the case of infants, the investigators carried out their study with children with active symptoms of congenital syphilis. They used arsphenamin given by enteroclysis and also the supsalvs suppositories. The authors conclude that the clinical results were too feeble as compared with the intravenous or intramuscular method to warrant favorable consideration of the rectal administration. The investigators hold, moreover, that neoarsphenamin and sulpharsphenamin are now generally used by the intramuscular route in the treatment of syphilis in infants with results that are above reproach. (Jour. A. M. A., March 15, 1924, p. 888.)

Canine Rabies Virus.—Results of the single injection method against rabies in dogs have been reported from different sources. The U. S. Bureau of Animal Industry has been conducting experimental work on this subject and results indicate that the prophylactic vaccination has value which, however, is determined to a certain extent by the virus to which the animal is exposed. The use of the single injection vaccine in animals that have been bitten is believed to be unwarranted at this time. The Hogyes, treatment of six doses, in animals bitten, has been used successfully for some time and the failures reported have been small. The use of the Hogyes vaccine together with the cauterization of the wound and the placing of the animal in quarantine for six months to a year seems to be the best method of treating such cases.

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SOME CONSIDERATIONS REGARDING DISEASES OF THE HEART AND CIRCULATION

By ALFRED STENGEL, M. D.
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Oration in Medicine Before the West Virginia State Medical Association, Wheeling, May 13, 1924.

First of all, I want to emphasize the fact that diseases of the heart and circulation bulk very largely in the list of diseases to which man is liable. In the draft examinations made upon our entrance into the World War, among the millions of young men examined it was found that about two per cent had to be disqualified on account of some disease of the heart or circulation, and we must remember that these examinations applied to young men, for the most part under thirty years of age. Had a similar number of individuals been examined including a proportionate number of men and women past forty years of age, the total percentage of diseases of the heart and circulation would surely have run much higher. The examination of mortality statistics shows how many persons annually die of heart and circulatory diseases. If you will look at this list on the chart of a previous speaker, you will see how largely diseases of the heart and circulation figure among death certificates. If we were to take a census of the whole United States I think it might easily be shown that a half million people in this country are suffering from very severe cardiac or circulatory disease, and if we were to include mild forms of disease the numbers would be very much increased. So disease of the heart and circulation is a very common thing among men, and it is a very serious thing when we look at the mortality statistics. If we look at the economic side of this question, ignoring altogether,

for the moment, the suffering and ill health, the grief to bereaved relatives, and all that human side of the question, and think only of the economic side, think what a toll it takes out of our population from the loss of life, the curtailment of promising careers, the loss of productiveness, the extra cost of maintenance of these cardiovascular dependents, the cost to this country would run into hundreds of millions of dollars each year. It is hardly profitable to try to make an accurate estimate of the money involved but we can easily see that with such figures it must run into hundreds of millions of dollars.

Now, is any considerable proportion of this personal suffering and debilitation and this loss of life, and any considerable portion of this economic loss in productiveness and earning capacity preventable? These are the days of prevention in medicine. As you have just heard, the prevention of disease possible by better regulation of child industry, etc., is of incalculable importance. In this matter of heart and circulatory disease, what can be done? The problem of prevention in the case of heart and circulatory troubles is comparatively a complicated one. No eradication, for example, of a noxious mosquito, as in case of malaria and yellow fever; no segregation to avoid contact, as in the case, let us say, of tuberculosis or possibly pneumonia and some other infectious diseases; no matter of food regulation and water filtration, as in the case of typhoid fever, will here accomplish the desired results in one bold and broad sweep. But the problem must be attacked in an organized way, and it is quite certain that the incidence of cardiac and circulatory disease can be very much cut down, and the progress of such diseases, once they have begun or been advanced, to more serious grades, can be prevented by co-operative -effort. Now, that co-operative effort to prevent these things means co-operation among what may at first sight seem a rather heterogeneous selection of individuals and organizations. As I see it, it means co-operation between physicians, their patients and the relatives of their patients, the school and public health authorities, the employers of labor, and labor organizations. These are the important components, as I see it, in this problem of prevention of cardiovascular disease, and I shall try to explain to you.

Before entering upon the practical steps in prevention of cardiovascular disease, let me say that this sort of co-operative effort has been started in certain localities by the establishment of organizations devoted to the prevention and the study of heart disease and to the cure of cardiovascular disease. Committees or organizations have been established in a number of cities of the country, and they should be and will be established much more widely in the future, I am sure. These organizations are attempting to bring about the results to which I shall allude.

We doctors have to come to a realizing sense that more of our cases of infectious diseases can be prevented from having or leading to serious heart disease than has been the case in the past. I think physicians generally have a fatalistic feeling that patients with infectious diseases — notably, of

course, rheumatism, which stands at the front—that a certain proportion of these cases are going to get heart trouble, no matter what we do, and I believe we are permitting our patients to acquire cardiac disease that could largely be prevented. A few spectacular things often bring to our notice facts which ordinarily might pass unnoticed. It has happened twice that I have seen an individual develop the evidence of cardiac disease almost under my eyes. In one of those cases a convalescent from rheumatism was permitted to get out of bed before he was well enough and had a sudden rupture of a heart valve while making a slight exertion.

It is important for us to persuade ourselves that by strict rest and protracted convalescence in bed we may reduce the number of cardiac cases considerably. If we can not persuade ourselves, how can we expect to persuade our patients? When I was a medical student a wise old school professor said to us, "The place for a patient with fever is in bed," and many old-fashioned doctors like myself still believe it. But you know how many young persons with severe colds or with tonsillitis or other infections are permitted to go about, often in inclement weather, and no one knows how many cardiac diseases result therefrom.

It is the fashion of the day to regard focal infections—bad tonsils, root abscesses of teeth, collections of pus in the sinuses about the nose —as the cause of heart disease, and the whole campaign seems to be in the direction of searching out these focal infections and eradicating as many of them as possible; then having a self-satisfied feeling that we have done all that can be done in the premises. While we have been active in searching out these focal infections and preventing heart trouble in that way, we have been remiss in allowing patients with acute infections and who have fever to get out of bed. There are no statistics to show how many cases of heart disease could be prevented by this strict care of cases of infectious disease.

Now, that is not the end of the story. A person gets rheumatism or some other infection and has beginning heart disease. That is to say, damage of a valve of the heart occurs. At first it is not very apparent, and the individual may go on for a number of years before it becomes apparent, but we know from pathologic investigations that the origin of the heart disease in that individual was in the attack, let us say, of rheumatism when he was fifteen or eighteen years old. Now, is it necessary that that individual who had the beginnings of his trouble at eighteen be in the condition in which we find him at thirty-five? This concerns the second line of attack on heart disease. When I come to the seocnd part of my paper, a little later, and when I shall be compelled to speak more technically, I shall try to point out what I mean by preventing a case of heart disease starting in early life from becoming the established affection it is in the twenties and thirties. A great deal can be done by the careful survey and careful supervision by the physician of his patient's daily life. This involves, also, co-operative effort between medical agencies and the employers of labor and the labor organizations, and I want to say a word, a

very serious word, in regard to these matters. A great many patients, individuals who have heart disease, are simply ruined by the Juggernaut of industry. When I reflect on the case of a young man whom I saw two weeks ago, who had one of the most serious forms of heart disease, aortic regurgitation, and upon inquiry into the reasons for his sudden attack, we found his occupation was the loading of bags of sand into a wagon, raising the hundred pound bags of sand to a height above his head all day long; and when I recall the many, many cases of cardiac disease employed in some occupation of a straining character who have had their compensation broken, I can well imagine that hundreds and thousands of them could have gone on for years in relatively adequate compensation if they could have been taken from occupations in which the strain is too great. Therefore we should have some co-operation with employers of labor and labor organizations. The employer of labor is unwilling to tackle this job because he is afraid there will be trouble with the labor organization; the labor organization is afraid to have this matter attacked because it does not want any man who applies for occupation to be declared physically unfit. But they are both wrong. It is to the best interest of the employer, it is to the best interest of the employee, it is to the best interest of the labor organization, I am convinced, in the last analysis, to have physical examinations of individuals who enter into any heavy mechanical occupation. What sort of regulation do we have today? None with reference to the welfare of the unfortunate individual, and much that refers to the game or the business. We do not allow a man with a damaged heart to drive an airplane, because, forsooth, he might lose control of the machine and it might drop to the ground and the passenger be killed. A railroad engineer is not allowed to drive a train if he has a weak heart, if it is known, not because of the harm to him, but because he might wreck the train. That, of course, is right and proper, but let us look at it from the standpoint of the individual. During the war a great many organizations came to know the value of these examinations and fell into line. It is not to the advantage of business concerns to have handicapped men working side by side with men who are not handicapped. When organizations looking after this sort of thing come into being — heart committees such as I mentioned a while ago—they will list occupations and they will list employers who are willing to employ these men who are somewhat handicapped physically. This applies not only to heart cases but to men who have lost a limb or lost an eye, etc. There should be some voluntary agency to look after the listing of such men and such employers. If men with heart conditions could be kept out of such occupations and kept only in occupations which are safe for them, a great deal of premature breakdown due to cardiac causes could be prevented.

The third method of attack on circulatory disease—one which is becoming fairly popular all over the country—is the periodical examination of all individuals who have passed the age of forty or fifty. Periodical examination of all

humans of all ages is desirable, but especially so for heart and circulatory diseases after the age of forty. Everybody knows that examination of an individual every six months or once a year or once in two years would discover the beginnings of trouble and enable the physician to advise his patient as to how to conduct his life. But especially when we get to be fifty years old, when we are on the other side of the hill, it is wise and proper that we should begin to take stock from time to time and find out whether we are traveling too fast and whether we should be taking a turn to the left or to the right. That would do an enormous amount, I have no doubt, in cutting down diseases of the heart and circulation in later years.

Turning to the other side of this discussion, the more technical side, I wish to speak regarding diseases of the circulation rather than heart disease, and I want to say by way of preface to my fellow physicians here, we, all of us, have overemphasized the importance of the heart. We put down on tables like that on the black-board the term "heart-disease" and we do not mean heart disease; we mean diseases of the circulation. We speak of the heart as though it were a veritable steam-driven pump, forcing water through a system of tubes. The heart is the most important organ in the circulation, but there was never a heart big enough or strong enough to carry on the circulation by itself. When you stand on a dock at the seashore and look down in the water, in certain places, you will see some of those big jelly-fishes that swell and contract and swell and contract, like a pulsatile organ. That is more or less what our circulation does. The heart does not send the blood all the way around; it is the external mechanisms that bring back the blood to the heart. If I may borrow a humble illustration from my experience as a farmer, if you have a pump up here drawing water from a spring down there, and the spring is sucked dry, how long does it take for the pump to pump itself to pieces? That is exactly what happens to the heart if the blood leaves it and is not sent back again. Doctors know that the blood leaves the heart and is present in the larger blood vessels at a pressure of 150 millimeters of mercury. It is present in the arterioles at a pressure of 100 millimeters, let us say. When it goes to the capillaries, it is at a pressure of five or ten millimeters. Now, a pressure of this reduced degree is not adequate to send the blood back into the heart. What does drive it back? The effect of muscular contractions; of stretching movements like this out-stretching of arms is so helpful when one is tired out by long sitting, the effect of breathing, creating negative presure in the chest; the effect of gravity which aids the blood flow back from the brain, the effect of contractions of the diaphram and the abdominal muscles; not to mention the possible effect of the elastic contractions of all the tissues compressing peripheal vessels. If the blood does not get back to the heart the heart pumps itself to pieces. That is why I say it is a mistake for us always to consider the circulation from the standpoint of the heart. Let us look at it from another angle. We have had some most illuminating work done in the last few years by

Krough of Copenhagen, and other physiologists. Krough found that in place of having a certain number of capillaries always in commission, as we were taught in our student days, we have large numbers of capillaries that are empty at the time some of them are full, and from time to time new capillaries open. During the war, while investigating the problems of Shock, Cannon and Dole and Richards, one of my colleagues, showed that the real cause of shock is the opening of all these capillaries, so the man literally bleeds himself to death into his own blood vessels. Now, the number of capillaries that may be open at any given time, or the number of capillaries that from time to time will take their turn in events, will determine the peripheral circulation. I need only remind the doctors here of what was instituted in the treatment of cardiac disease at Nauheim, which had so much vogue a few years ago. It was a treatment applied to the exterior of the body. It was a treatment with certain baths charged with carbonic acid gas, which brought the blood to the skin, supplemented by a system of certain movements, upon the old principle that a muscle, when in use, is full of blood.

Nine times out of ten, when confronted with cardiac disease, we think, what can I give to make that pump work faster? How many ask, what can I do to lessen the peripheral strain or aid the peripheral circulation? I had this lesson early in my medical career, A dear old lady, a friend of mine, and whose grandchildren were friends of mine, was good enough to place herself under my care. She had a weak heart, and once or twice fainted on the street. I gave her all the best remedies, one after another, but they did her no good. One day she asked me if I would mind her going to see her old friend, Dr. Duhring. Some of you medical men here will see the amusing side of that, because Dr. Duhring was a specialist in skin diseases. After some time she came back, and asked me to count her pulse. I did, and it was as steady as mine, so I asked her what Dr. Duhring did for her. She said, "Well, you know I have varicose veins, and have a little eruption sometimes around my ankles for which he was treating me, and he told me to put on elastic stockings." Her heart was pumping into a bottomless pit, for those veins were big enough to hold all the blood in her body. When she put on those elastic stockings the channels were narrowed and her heart was relieved by receiving an adequate return of blood from the extremeties.

Doctors know how big a factor in the whole circulation the abdominal or splanchnic circulation is. When I was a medical student a very dramatic professor of ours used to tell us that a man could be bled to death into his abdominal vessels. A punch on the solar plexus, and all the blood will rush there from the brain and bleed a man to death. The abdominal blood vessels are so large that they could hold all the blood in the body. If you were to open the abdomen of a rabbit that had been fed its fill with green vegetables and inspect it, you would find that all the veins and all the blood vessels in the abdomen are full of blood, but if you take the rabbit and keep it on starvation

rations for a week and then open the abdomen you will find all the blood vessels in the abdomen blanched, anemic and white. If you will turn to your books on physiology you will find that during the activity of the abdominal viscera, during digestion, much of the blood is there. Now, what effect does habitual overeating have on the circulation? You will see that very strongly in robust individuals, rather oversized individuals, who have somewhat weak circulation. How does blood normally get back from the abdominal vessels to the heart? It can not flow up hill. The contraction of the blood vessels has some effect, but it is very largely the effect of breathing, with its suction toward the chest and the contractions of the diaphragm and abdominal muscles. That is why long, slender, gastroptotic individuals suffer so much from shortness of breath, have cold hands and feet, on account of the low position of the diaphragm and the ineffective abdominal muscles. The blood can not get back, but there is nothing wrong with the heart. I am trying to emphasize these things because I think we should study the man more as a whole, and not the heart as a piece of mechanical engineering, trying to strengthen the heart to do a piece of work it can not possibly do.

Now, if I may next go to a matter to which I alluded in the beginning, why does a person with heart disease and rheumatism break down? Ask yourselves that question. Why can one of us who got a mitral heart lesion when he was 18 years old, why can he go on from eighteen to thirty without manifesting any heart disease, and then develop decompensation? There is not anything progressive in the heart lesion. What this person has at thirty-five he got when he was eighteen, and probably no more. From eighteen to thirty-five he was in good condition, then why did he break down at thirty-five? There was no progressive thing in his heart, but what went on was that he was overstraining himself from time to time, and as he had a heart lesion established at eighteen he was not in condition to take on the strains a healthier man could take on, and he broke down. What does that mean in practice? It means there is nothing unavoidable about a person's breaking down with heart disease at any certain time. If there is a break in compensation we had better make up our minds that there was something wrong in the regulation of that individual's life. If the individual put himself unrestrainedly under our professional care, then it is our fault; if he did not, it is his fault. A person must put himself under careful supervision when he finds he has a heart lesion, but what often happens is this: A man comes in; you say, "Yes, you have mitral lesion, perfect compensation, it will probably give you no trouble. Take care of yourself, though." Now, you know that is no good whatever because specific and not merely general advice is needed. A person with a mitral lesion must be under very careful supervision. Attention to that individual must not be focused upon the heart, but more upon the whole body, especially the stomach. More people do for themselves damage through improprieties of eating than in any other way.

These questions I want to refer

to because they are questions that come up in the daily practice of every physician. First, what about exercise? What should the person whom we see with compensated heart disease do in the way of exercise? Very often these people are advised to get some very sedentary occupation. If it happens to be a man in good circumstances in life he is told, "Well, you had better give up that active business and see if you can get a clerical job," so he sits all day long. A man in less fortunate circumstances is told to try to get a job as timekeeper, etc. I do not believe that is good advice. I doubt if it is well for a person with heart disease to have to sit all day long. I think it is a great deal better for him to have an occupation with a little exercise, —for a person in fairly good circumstances, an occupation that will take him in and out of doors; for a person in less good circumstances, some light artisan occupation. To say to a person that he must take a clerical job or be a timekeeper, and have no other thought in your mind, I think is wrong.

As to children, I am asked by mothers all the time what to do about the child. Shall he be allowed to play with the other children, allowed to play in the games at school? I think we make a mistake in saying, "Don't let that child go into games or sports; better interest him in reading or knitting or something like that." You will have a nervous, introspective child if you do. We want the muscles to be exercised. A little activity helps in the circulation. Take a chance on occasional excesses.

Now, in regard to the question of diet. We read about men of fifty or sixty having died of acute indigestion. Of course, none of them died of acute indigestion; they died of acute heart failure due to an overfull stomach. The worst thing I think a cardiac patient can be guilty of is gormandizing, stuffing his stomach full of food, thus filling the abdomen with blood and straining the heart.

The proper care of the skin, the proper kind of bathing, the proper kind and amount of rest, all that makes for a wholesome condition of the exterior of the body, those are things that in the end help the heart itself.

Now, I have not said a word about treating the heart itself, but of course you physicians know that I did not mean that the heart is not to receive our thought and care. We have, however, been directing too much of our thought and care to the heart itself, and not to the peripheral circulation. If we wish to avoid decompensation, the latter must be our first thought and care; after decompensation it is of course a matter of common knowledge that cardiac remedies, like digitalis, find their time of usefulness though even at this period other measures of treatment must not be ignored.

ADEQUATE OBSTETRIC SURGERY IN BIRTH CANAL WOUNDS

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Just where or when obstetric surgery ends and operative gynecology begins is a debatable question.

There is also room for contention relative to another hypothesis; if the obstetrician's work were to become so efficient that the proper repair of all birth canal wounds could be reasonably assured, would there remain sufficient pathology within the female pelvis to justify the existence of gynecology as a specialty in the field of surgery? An excellent chance here for a display of logic on the negative side of this subject. One assertion at least cannot be questioned. It is capable of confirmation by substantial proof, that the birth canals of those who go through the travails of labor do not receive the same attention as that given to those exposed to all other forms of acute trauma. It is not comparable to the care that is given to the victims of ordinary street accidents. The physician who would repair only the obvious wounds of one who had sustained a severe injury, and be indifferent to the possibilities of deep and hidden trauma, making no attempt at a thorough examination, would expect ere long to have his goods and chattels apportioned by the courts for the benefit of the sufferer of his inexcusable oversight. A perineal wound will be noted and routinely repaired and possibly the low vaginal wall lacerations given attention. But within a few inches of possible cervical injury, very strangly, the obstetrician's surgical conscience seems to become dulled, and the vaginal vault and cervical area may not even receive the consideration of an examination. This may seem an undeserved reflection but it is too often true. It would be interesting to know how many obstetrical bags are supplied with proper retractors, tenaculi and other instruments necessary for a proper investigation of the upper vaginal region. Possibly a larger number than the writer thinks, but he is more familiar with the instrumental outfit in a number of hospital delivery rooms, and here such instruments are rarely in evidence. They would be there in the emergency outlay on the sterile table, if there was a general demand for them, and a routine examination invariably made.

Another matter of importance rests in the fact that the perineal wound, though repaired, not infrequently fails of complete primary union. The edges of the skin may hold, but the fascia and muscles separate and are left to heal by the granulation method, usually with an unsatisfactory result.

The pathological ills which ultimately may follow these improperly healed birth wounds would make a well-nigh endless catalogue. Only a brief recital will be made of the more disabling ones. The impaired vaginal outlet eventuates in the prolapsus tendencies of later years, the cystocele, the rectocele,—all the various phases and degrees of procidentia with their vesical and rectal varicosities, together with the accompanying ptosies of the abdominal organs.

As vast as is this group, the sequellæ of the lacerated cervix are incalculably greater. Dependable studies of this subject have resulted in the reliable estimate that 80% of all women who have borne children have sustained cervical lacerations, and that 40% of these result in actual pathological changes. The immediate infection of uncared-for cervical lacerations is of frequent occurrence with pelvic complica-

tion of varying severity, lymphangitis, cellulitis, localized peritonitis and abscess. If the wound escapes serious infection, cervicitis will at least result, in time, with erosions and cystic degenerative changes. The secondary effect of the deep cervical injuries is a belated involution of the uterus, with metritis, parametritis and spasticity of the utero-sacral ligaments. These latter conditions play a very decided role as etiological factors in causing backward uterine displacement. Unquestionably, cervical lacerations are chiefly responsible for uterine retro-deviations and their sequellæ, and therefore the cause of a large amount of pelvic pathology.

The retro displaced uterus thru circulatory disturbance is fated to a condition of chronic metritis and endometritis. The ovaries necessarily become involved. They are carried into the cul-de-sac by the retroflexed fundus and rest, in fact as between two millstones — the heavy uterus above and the usually burdened rectum underneath. A low form of inflammatory change follows with degenerative tendencies—a thickened capsule and polycystic formation. A familiar group of symptoms are then in time likely to be in evidence, dysmenorrhœa, luecorrhœa, sacral and gluteal neuralgia, sterility, broad ligament varicosities, obstructive constipation, with an innumerable host of reflex nervous and digestive disturbances.

In cancer of the uterus it has been estimated that 71% are cervical. The influence of old lacerations as a predisposing cause has not been definitely determined, but undoubtedly the most fertile source of malignancy at this point is found in old scar tissue. Its presence is positive evidence of imperfect repair of a birth injury.

Much criticism is directed toward the unfortunate woman with cervical malignancy for the reason that so often the disease is well advanced before an opportunity for diagnosis is given, and because of the late diagnosis the mortality is high, no matter what be the treatment instituted. Consequently, false modesty, procrastination, ignorance on the part of the patient, is charged as the outstanding cause of the great uterine cancer fatality. But it is not the patient who is responsible for the existence of the old scars. In the great majority of instances she is not aware of their presence. Indifference, oversight, or neglect, if there be such, rests at another's door. Detection and proper repair of cervical birth injuries at the time of their occurrence, or shortly thereafter, would have prevented the formation of the scar tissue. In this era of cancer prevention and cancer control propaganda, the challenge with respect to this one cause of malignancy is not to the patient; it is scarcely to the gynecologist, but rather to the obstetrician. In the future the obligation must rest with him to meet the complication of cervical laceration with surgery that is adequate.

Of the two stages in which early repair of cervical injuries may be undertaken, the immediate, and early granulation period, the writer's preference is for the latter. But a few obstetric specialists of recognized ability are advocating immediate repair of the cervix, at the same time that vaginal and perineal injuries are corrected, but

there are strong objections to this procedure. First, the difficulty of determining the existence of lacerations and their extent, with certainty. Second, the difficulty in the surgical technic of nicely approximating tissues in this unfavorable position, which are in a state of œdema and generally distorted and mis-shapen. Third, the increased possibility of infection in the exposure and manipulation of the traumatized cervical tissue. Fourth, the possibility of the stitches cutting themselves out and proving inefficient as the œdema from the trauma increases in the first few days after injury. Fifth, the possibility of interfering in some degree with free drainage of the lochia, encouraging the condition of sapreamia.

Virtually none of these objections can be raised against the later operation—in the early granulation period of the second week following labor—eighth to twelfth day. A careful aseptic examination at this time discloses the success or failure of any perineal repair which may have been necessary, and the further investigation of the cervical area will make clear the extent and character of any cervical injuries which may have been sustained. With proper precaution the danger of exciting infection at this stage is nil. It is true here as in fracture surgery. If suturing, wiring, plating of the fragments is necessary, it is now known that it can be done toward the end of the second week with little risk of infection. The tissues are so fortified by the reparative process which nature has established by this time as to reduce the chance of sepsis to a minimum. The same is true of trauma about the cervix. After eight or ten days the acute œdema has disappeared and the repair work may be carried on with ease. The lochia is by this time greatly reduced —the process of uterine drainage about complete. There is now no interference to the work of repair from the presence of profuse secretions. At this stage the technic of repair is simple. Local anæthesia may suffice—8% cocain for the surface with 1% novocain for injection. The nitrous oxide is ideal if available. Alcohol or a weak iodine solution is sufficient to make the operative field sterile. Retractors to effect a perfect exposure, two pairs of tenaculum forceps to separate and fix the lip of the wound, a sharp curette to thoroughly freshen and make clean the granulating surfaces, scissors to give a fresh edge to the mucous membrane, needle and chromic gut, and the outfit is complete. Curettage of the granulating wound is essential, but only this preparation of the surface is necessary. If there has been unsuccessful surgery with respect to perineal wound, like treatment should be given to it.

Operative procedure of this character, at this stage, rarely fails of perfect union.

The physical ills which female flesh is heir to, relative to her procreative mission in life, should be the first to fall under the spell of the spirit which dominates modern medicine — the spirit of prophylaxis. Women's pelvic pathology, the direct or indirect result of her parturient experience, can be prevented or materially reduced if her birth trauma shall simply receive operative attention which measures up to the high standard of present day surgery.

Discussion

Dr. James R. Bloss, Huntington: I do not think there is any branch of our professional endeavors so badly neglected as is obstetrics. It seems to me that pain and suffering not only of the woman but all the way from that to the divorce court depends very greatly upon poor obstetric service. Dr. Reed spoke of an obstetrical conscience which has been bothering him for many years. There are some of us who have not had as much practice as has he whom it bothers greatly. The repair of obstetrical injuries I think should be done immediately. That is all right if you have them in the hospital, but suppose they are on a bed eight inches from the floor and the light is up at the ceiling. Or suppose the light is on the other side of the room. We do carry tenaculi and the other aids which the Doctor mentioned, and try to repair these injuries immediately. Some of us have a Neshmott table, and besides carry enough obstetrical equipment to weigh about fifty pounds. We do try to repair the cervix immediately, and it may be that the Lord is with us, but a great many of them heal by primary union. As to perineal injury, I believe the perineum should be repaired in layers, just as is the abdominal wall. It does not do much good, so far as preventing rectocele or cystococele is concerned, if you get the ends of the muscles and the skin only. We make it a rule to get the deep fascia, then the muscles, then the superficial fascia, then the skin and mucous membrane. We think it will prevent infection if you repair even the minutest abrasion of the mucous membrane. We have made it a rule to do so, within the last few years, and have gotten very satisfactory results. It seems to me you get the drainage and involution better if you repair the injuries. I did not always realize the importance of doing that, but now, while of course they do not all hold, I try try to repair them all. I believe the women are left in better shape, and that if all the men doing obstetrics would try to make as perfect repair as they could, I believe there would be fewer divorces.

Dr. C. O. Henry, Fairmont: I have thought heretofore, and this is a question that I want to ask Dr. Reed, that these repairs of lacerated perineums were made before the expulsion of the placenta. I am rather inclined to believe, after hearing the paper and Dr. Bloss' discussion, that a later time and more time ought to be taken along that line in order to approximate as near perfect repair as possible. I want to ask Dr. Reed if this should be done before axpulsion of the placenta.

Dr. C. H. Maxwell: I do not want to discuss repair of the perineum, but I want to discuss prevention of the tear. If you are there in time to use digital dilatation of the os, and see that it is fully dilated before the head comes through, you will have no tear. You know we are taught by some not to put the fingers into the vagina, but put them in the rectum and make pressure. It would seem better to get your fingers clean and spend your time dilating the muscles of the perineum and dilating the os, so when the head comes through the tears will at least be small. If you use pituitrin you will have perineal tears. We must take

a little time; sit at the bedside several hours, if necessary. And don't be too lazy. If you think the obstetrical pains are a little too heavy and you think you are liable to get a tear, give a little morphine or chloroform and slow them down, and spend your time stretching the os, and you will not have the tears.

Dr. Hugh G. Nicholson, Charleston: I think Dr. Reed's paper is very excellent, and I agree with him as to the time that these repairs should be done. The reason why we find the tears after Dr. Bloss has sewed them up is because the catgut is absorbed in the lochial discharge. The reason why Dr. Reed gets results is because he waits until about the twelfth day, after the discharge has ceased. If you use the twenty-day catgut it will be absorbed in five days by the normal vaginal discharge. I have found, and all manufacturers tell you, that you should not use plain catgut in the peritoneal cavity, as it is absorbed in twenty-four hours. Close up your peritoneum with chromic catgut. The Journal advises you to use thirty-day catgut at any time. If you use anything less you will not get the results.

Dr. Reed, closing the discussion: I agree with Dr. Bloss that if you have your patient in the hospital, with good assistants, immediate operation is justifiable and, in the majority of instances, will be satisfactory, but that is the exceptional case, and this is not likely to be popular. I do not believe the profession will ever come to the conclusion that this is the right thing to do. The objections I attempted to emphasize are pretty strong, and they do hold in the majority of cases. These are the difficulty of making out the extent of the laceration, the unshapeliness and distortion of the parts, the greater or less amount of secretion pouring down into the wound, the possibility of the sutures cutting through too early and causing edema, the absorption of the catgut, the greater or less likelihood of retention, and imperfect lochial discharge. The thing that ought to be gotten into the conscience of the average practitioner is that he must not dismiss his patient until he knows what her wounds have been or if there are any. If he goes that far, if he has any surgical sense whatever, he will repair them at the time. Surely at this time no one will let a patient go out from under his care without knowing what the conditions are with respect to any perineal tear and with respect to deep wounds. They are easily repaired at this time, because the red granulations show up for themselves. They are easily repaired at this time, and you will be surprised and delighted at the results. Both perineal and cervical wounds will heal with proper curettage. You will raise the objection, of course, that the patient expects to be up on the tenth or twelfth day, and this will keep her in bed longer. But even if you let her get up on the day after you put in the stitches, she will be better off than if nothing has been done. So on the eighth or ninth or tenth day, depending upon the patient's condition, an inventory should be taken and the repairs made, and even if the patient has to remain in bed a few days longer she will be much better off in the future.

TWENTY MINUTES WITH THE DAY BOOK

By C. H. MAXWELL, M. D.
Morgantown, W. Va.

Read at Annual Meeting of West Virginia Medical Association, Wheeling, May 1924.

The old woman said: "The dictionary is a powerful fine book to read, but it changes the subject so often." If this paper changes the subject often, it is not more so than the dictionary.

Why the Day Book? Why spend the time to put from none to fifty entries a day in it? Isn't this all dead waste of time? Most of us have to do this to keep track of what is coming at the end of the month. Yet this is not all its uses. This gives a record of great value of work done, the names of patients waited on, the price for work, whether cash or credit (mostly credit), and at any time if a question arises as to when and to whom work was done, the day book will show it. Yet it makes one sick at heart to look over the countless names of those who, intentionally or not, "worked" you for their medical assistance.

When I did country practice only, I set down on the margin of the day book the distance traveled in seeing each patient. This was added up and carried to the next page. I found that in four years, I had traveled more than 26,000 miles, mostly on horse back. The hardships and the testing of physical endurance are clearly exemplified by this one item, which shows the magnitude of the work done by the doctor on horse back.

One is surprised at his own versatility in meeting every condition of of illness that he runs across in the course of a single day's work. For instance, if he makes twenty-five entries in the day book, there may be twenty different kinds of conditions to be met. This is a task that would stagger us if we had not been brought to it by years of training and experience. One patient may require a glance and a question to see through the entire case. The next may be one to be sent to the dentist or optician or oculist. The next is a surgical case pure and simple and is turned over to the tender mercies of the man with the knife. The next is a plain case of acute gonorrhea and needs immediate action. The next is one of an endless variety of gynecological cases that tries the patience of the elect. On the heels of this is the obstetrical case with its cares and responsibilities . The neurasthenic is next, followed by hysteria or chorea, or dementia, or ingrowing nail, or bunion, or goitre, or hernia, or itch, or chicken pox, or diphtheria, or quinsy, or worms, or tuberculosis, or rheumatism, or nephritis, or cystitis, or jaundice, and so on and on with kaleidoscopic changes all day and all night till one's mind is buzzy and his faculty muddled at the infinite variety of conditions that he must meet at every turn.

Threatened Paralysis

In the patient past middle life, with florid face, throbbing carotids, with or without hardened arteries, and a general plethoric condition, we have the premonitory symptoms of threatened cerebral hemorrhage. Accepting these as danger signals we can take steps to ward off the threatened disaster. Then if the

blood pressure instrument indicates high tension, we can with much certainty ward off the impending danger. By lightening the diet and avoiding strenuous exercise, we can probably aid in preventing further rise in blood pressure. In veratrum viride we have a remedy that is specific in lowering the arterial tension. Add gelsemium to the veratrum, and we have a combination that is extremely satisfactory as a temporary relief. I remember a case that the systolic pressure was 325, and the patient's complexion and appearance indicated imminent danger. He was put on these remedies and his food somewhat restricted, and in a few days his blood pressure was down to 175. He lived in comparative comfort for several years, but finally died from hemorrhage of the brain, when he failed to keep up the arterial sedatives for a few weeks.

By the way, veratrum viride is a wonderful drug, one without a peer for certain conditions. Yet some of our medical schools barely touch the remedy in their teaching, merely saying, "About the only thing it is recommended for is to keep down spasms in obstetric eclampsia." It just as surely keeps down spasms in a great variety of conditions. It was a bad day for the medical men when this wonderfully efficient remedy was practically put from the curriculum of medical schools. It might just as well be said of morphine, "It is too powerful a drug for general use." Veratum in oft repeated doses, pushed to nausea, is the surest and safest remedy we have to keep down spasmic conditions, whether puerperal or nervous or gastro-intestinal. "Bleed the patient in his own vessels," is promptly done with this remedy.

Lobar Pneumonia

This is called "The natural end of old people." It is also the unfortunate end of many robust men in the prime of life. It is no respector of persons. It is one of those diseases that we do not have long to worry about, or long to fight. It is a self-limited disease, and will end itself, favorably or unfavorably, in less than two weeks. Yet it should not be our method to see the patient often and let nature do the curing. This is one of the diseases in which we can aid nature mightily by proper therapeutic measures. Instead of bleeding the patient, as was done in Washington's case, the arterial tension is lowered and pain is relieved. We can "bleed the patient in his own vessels" by dilating them, and thus relieving the intense pulmonary congestion. It is true nature understands the method of fighting infection by local congestion, walling off the offending germs and producing her own antitoxins. This she does in three out of four cases, but the fourth succumbs to the virulence of the attack.

It is this fourth case that we are anxious about. We cannot tell when we see a case whether or not it is in the first or second class, so we treat it as if it were to be the fatal case. I believe we can reduce the mortality to ten percent, or even lower, by energetic therapeutic measures.

An expectorant is indicated. Probably there is nothing better than the old, old combination of senega, ipecac and squill. Add to this black hellebore to reduce the arterial high tension, and relieve the pulmonary congestion. This

combination needs to be watched, increasing or diminishing the dose as the conditions require. It is not supposed that this will cure the disease, but it helps bridge it along until nature can bring on the crisis. Certain conditions call for aconite, and digitalis should be given in light doses and pushed when needed. Strychnine in tonic doses at first and in strongly stimulating doses later is a most reliable remedy. Feeding should be abundant, followed by heavy doses of artificial digestants. The artificial digestants dispose of the infected secretions swallowed, and helps digest the food.

The room should be comfortable. The air should be good, but the wide-open windows in winter should not be allowed. The patient needs his energy to throw off the disease, instead of using it to warm the air about his body. With proper therapeutic measures and efficient nursing, I believe the mortality in lobar pneumonia should be reduced to not more than five per cent.

Broncho Pneumonia

Broncho pneumonia is much more common than lobar and is much more difficult to handle. Most of the cases respond to treatment in a satisfactory way, but others seem to be out of reach. They do not respond but grow gradually worse, and pass on. For my part I cannot tell a broncho-pneumonia from a bronchitis. I believe Dr. Cabot of Harvard classifies them all as broncho-pneumonia. That is an easy way out of it. When we find rales in any part of the lung, tell folks the baby has pneumonia and is in a precarious condition, "but maybe I can pull it through." In this way we could soon get a name as an expert on pneumonia—rarely ever losing a case. I attended an eclectic medical meeting once up a time. A young doctor reported forty-five broncho-pneumonia cases in a few weeks. I asked to him "How many bronchitis cases did you have?" "I had none," was his answer. This young man may have been right in classifying all acute lung infections with rales as pneumonia. He and the Harvard authority agree.

Typhoid

I have seen but one case of typhoid fever in years, and it was an imported one. Instead of it being a great bugaboo, it is far more easily handled than one is taught. I was taught to go twice a day or more to see how nature was taking care of the patient, and advised if nature wasn't doing the proper thing to cut off more food and go oftener, and when nature's forces began to lag too much to stimulate, and skim the milk and dilute it more, and cut down the quantity. I reasoned: "If nature is to do the work, why should I stand around and watch? Why should I go at all? Why should I make the family think I am coming to help instead of coming to watch? Why should I collect a bill for work that is clerking instead of doctoring?"

So I abandoned the non-interference doctrine, and the starvation doctrine, and the poly-visits doctrine long before typhoid was driven from our community. So I devised a regular poly pharmaceutical shotgun cartridge of intestinal antiseptics; the principal ingredients were eucalyptol, thymol, zinc and soda sulphocarbolates, and oil of cinnamon. Given every four

hours with abundance of water, the intestinal symptoms all disappear in a few days, and the temperature comes down and stays down, but the fever runs its usual course of three weeks, but it never takes on the typical "typhoid" appearance.

The intestinal antiseptics I consider the most essential of any of the therapeutic measures, but abundance of proper food is another essential. (Milk is not one of them.) An active artificial digestant is given after food. This is essential as the digestive power is almost absent. Any additional medicaments deemed necessary can be added to this mixture. An enema of soapsuds and turpentine each day is good treatment. Golden says: "I give the injection each day regardless of the condition of the bowels." I have not had the temerity to use it after hemorrhage. But with the intestinal antiseptics used, we need not look for nemorrhage.

Gastro-Intestinal Troubles of Children

When I was in medical school, it seemed that every lecturer had something to say on hernia. This seemed to fill the minds of every one, and was kept up and up. I had three lectures on gastro-intestinal diseases of children. In active practice I meet at least two hundred sick babies to one of hernia.

In spite of our most earnest efforts we still lose some patients with indigestion troubles. Most cases respond in a peculiarly satisfactory way to treatment, but occasionally failure follows the best efforts. Occasionally the onset is so virulent, and the call comes after the vitality of the child is sapped, that despite the most active efforts the end comes rapidly. One will nearly always put the responsibility on the nursing or feeding or surroundings, but whatever the shortcomings, one more is added to the death list.

Proper feeding is of course the main essential. When the mother does not furnish nourishment, we are almost fatally handicapped in many instances. In a miner's shack or hovel of the ne'er-do-well we find the handicap almost impossible to overcome. But these cases are to be met just the same as any other. Change of food and castor oil probably are the best to begin with. If the movements are acid, the old neutralizing cordial will generally straighten things out. Bismuth may be added. If an astringent is needed, there probably is nothing better than zinc sulphocarbolate in solution. To this maybe added bismuth and pure pepsin. This given after food, or at regular intervals generally meets the indication. One or two calls generally are all that is necessary. Sometimes things go awry, and one sweats drops of blood trying to ward off the approaching end; but our efforts are vain. If we could all be specialists on children's diseases, many a little casket would not be used.

Corns

Soak the foot in hot water, trim the corns, apply salicylic acid and cannabis indica in collodion, take the pressure from the corn by putting cotton back of it, change the make of shoe and we have done first class chiropody.

Boils

One has frequent occasions to treat boils. A good local appli-

cation to "bring them to a head," is beneficial. Then open, and take out the core, a tenth of a grain of suphurated lime twice a day for ten days, generally stops their formation, and protects for about a year.

Eczema

In eczema we have a condition that is always with us. This is one of the unsatisfactory diseases to handle, expecially on the hands of the housewife that has to attend her household duties without rubber- gloves. It is generally conceded that by keeping water away from eczema and using any bland ointment it will get well itself. By using olive oil to keep the parts clean and applying a fir balsam ointment, the eczema is promptly "cured"— and in many instances, permanently cured. This is the most satisfactory eczema "cure" that has been used.

Itch

There are times when we run across scabies. This is a disease easily cured — nothing is cheaper and better than sulphur and lard, with a general wash up of bed and body linen later.

But we have hundreds of cases of an "itch" not scabies, that has infected whole neighborhoods, that requires something more than "sulphur and lard." Through our part of the country it is the most common skin disease we have to deal with, and it is difficult to handle. The whole family is probably infected before any of them seek help, and often the school nurse or teacher sends the parents word to treat the trouble. The disease can be cured in about a week, and then a special effort made to clean up infected clothing and bedding. Unless this is done reinfection is almost immediate.

Syphilis

We are expected to attack anything that comes our way, and too often we are confronted by the syphilitic patient. This disease is no respector of persons when these persons have no respect for themselves. Whole volumes are written on syphilis, and the journals and magazines are full of it. This disease really ought to be turned over to the G. U. man, but many of us think "we are about as good," as the specialist, and proceed to treat the patient. In spite of the miraculous work of the arsenic preparations given in the veins, we still have nothing else as reliable as the mercurials. When we get a case it should be made plain that the "606" treatment is merely a temporary cure and that he must take mercury and other remedies for a long time; yet there is not one in ten that will keep up the internal medication when every vestage of the trouble seems to be gone. He will say: "I am as well as ever, what is the use of my taking medicine?," and he will not do it. Most of those venereally infected are people whose moral fibre is poor, and they go along in that careless manner charactistic of their class, and they fail to appreciate the gravity of the Mosaic Law—"The iniquities of the parents are visited upon the children to the third and fourth generation." This point should be made plain to every patient that comes under treatment. One almost ought to refuse to treat them without solemn assurance that treatment should be kept up until they are well. The neo-arsphenamine is given till all secondaries are

gone, and the patient feels well. The doses given are often too small to do the best work. Yet heavy doses may prove disastrous. Except antitoxin in diptheria, I know of no therapeutic measure that is so manifest and satisfactory as the "606" injection in the early secondaries of syphilis. No doubt many may be able to throw off the disease without medication, at least to such an extent that the tertiaries may not be manifest till much later in life.

Anaemia

Acute anemia due to hemorrhage generally needs no treatment except abundance of food and drink. The anaemias of young women are a little more difficult, but there the treatment is mostly without drugs —dietetic and hygienic. Iron helps. Heavy doses are not indicated. Light doses that the system takes up will soon do good. Big doses instead of benefitting do harm. The amount of iron that is used daily by the blood is extremely small. Any that is taken into the circulation that is not utilized is deposited in the tissues, and acts as a foreign substance and does harm—a great deal more harm than what is used does good. It is my belief that the tincture if iron has done more harm than it has ever done good.

Pernicious anemia seems to be as intractable as any disease we have to deal with. It is likely the organic preparations of iron are much better than the inorganic ones, as they are non-irritating. Probably diet has more to do in the improvement in these cases than drugs or transfusion. Transfusions are indicated; yet it seems to me there ought to be some way to stimulate the metabolic functions so the body could manufacture its own haemoglobin. Here is a good field for work to find out why the body cannot make its own blood in proper amount.

It is probable that transfusions in pernicious anemia lower the metabolic power of the system. This supplies the blood rapidly, and the factories of the body, finding they do not need to work, rest from their labors, and their inability to work is thus still further lowered, and thus we do more permanent harm than permanent good. It seems that if the physiogolist, the chemist and the clinician could get together in their efforts, that some definite good could be accomplished.

Tuberculosis

The government in its report on tuberculosis among the gassed soldiers in France said: "In an open country like ours, every one, by the time he is thirty years old, is infected with tuberculosis. In the city slums all children are infected by the time they are three."

This is a dreadful state of affairs, one that gives the greatest anxiety for the welfare of our people. This knowledge of the infectiousness of tuberculosis is widespread and will redound to great benefit to our people. In this way protection against infection is being carried out in many ways. We hope the day will come that tuberculosis will be as rare as typhoid fever. Yet there is much hysteria and injudicious propaganda in combatting the spread of the disease. In some localities tuberculous patients and tuberculous suspects are shunned as if they carried some deadly miasma that could exhale from their bodies, and transmit it to those that come in con-

tact with them. This makes the patient have the feeling of a criminal outcast, and is a source of much depression to him.

If all patients had sanitorium treatment, it probably would be best. This cannot be. I have always maintained that most patients can do as well at home as away from home if given proper treatment. It is particularly essential that in the home treatment you impress on the patient the seriousness of the trouble, and that he carry out the instructions in a spirit of co-operation and determination to get well. Fresh air is not the principal means of cure, although it is important. Food is the prime means of recovery. A South Sea Island cannibal once wrote a poem consisting of three lines, with three words in a line. Here it is:

"Eat, eat, eat,
Eat, eat, eat,
Eat, eat, eat."

Have every patient commit this to memory and follow it out. The key to the whole situation is this poem. It should not be followed out with the Biblical injunction: "Eat what is set before you, and ask no questions for conscience sake." The food should not consist of milk and eggs and raw cabbage mainly, although these are excellent, but should also consist of an abundance of other things.

The whole aim to produce a cure is to build up faster than the disease tears down. This must be done through keeping the appetite good, giving proper rest, abundance of sleep, plenty of proper exercise, and some drug medication. This can be done at home, and most patients can continue with their regular work, modified to suit the case. They should be made to understand that their main object is to get well, and their energies must be directed in that direction; that regular habits must be maintained, and that in time they probably will be perfectly well.

The Slob!

A big boob, 17, came into my office with an acute attack of gonorrhœa. This is the most unsatisfactory disease to treat in the whole range of human ailments. In spite of silvers, iodine, zinc, permanganates and vegetable applications along with internal medication we have patients that hang on for weeks, and it makes us sick to see the child-like faith the patient has in us and our inability to cure him. This patient I speak of was given the usual treatment. Instead of having the cash, he said: "Muvver will pay you."

Sore Throat

There are many good remedies for sore throats, especially simple and follicular tonsillitis. A few doses of acetanilid preparations to relieve the systemic discomfort, then give eight or ten drops of the glycero-guaiac compound on sugar every two hours, and one prescription or call will put an end to the attack. A gargle of salt and soda is soothing. Or better still is zinc sulpho-carbolate. Echifolta diluted is also eminently satisfactory. However gargles are not cures, as most sore throats are manifestations of systemic infections and must be treated accordingly.

Diphtheria

Huge doses of antitoxin are not necessary in most cases of diphtheria. Five thousand units is usual-

ly sufficient if seen early. Ten thousand is as much as is needed in all but late cases, or in the laryngeal type. Systemic treatment should be followed in late cases to attmept to ward off paralysis.

Scarlet fever sore throat is treated locally and generally as other sore throats. But in cases where there is much filling up of the nose and throat with secretions it is best to roll the child in a sheet, bring the head over the edge of the bed lower than his throat, on a paper or oil cloth or rubber pad, and use the fountain syringe to wash out the secretions in throat and nose. By placing the nozzle in one nostril, the secretions will come out the other in surprising amounts. Then put the nozzle in the throat and wash this out. In this way the Eustachean tubes are kept open, and middle ear involvement generally prevented. This procedure should be more generally carried out.

Quinsy

Quinsy and peritonsilar abscess should be locally anesthetized and incised early to shorten the course. But local and systemic treatment must be carried out. In spite of the most active treatment, the condition will often persist many days.

The throat that resists ordinary treatment must be looked upon as suspicious of syphilis or tuberculosis. One is often surprised how promptly a throat clears up on giving a dose or two of neo-arsphenamine. But the tuberculous throat is a hard proposition, and insists on persisting in spite of treatment. It is not generally reached till the general health is built up and the disease is abated in the improvement of the bodily health.

Vincent's angina is apt to be mistaken for diphtheria. Administer antitoxin in case of doubt, explaining to the family this is done as a precaution, and that they will not be quarantined if the microscope does not show diphtheria germs.

Worms

It is good routine treatment of children with gastro-intestinal trouble to give one or two doses of santonin and calomel. One is surprised at the number of children that are infested with worms, and often the same treatment in adults in beneficial. There are many grown folks with obscure, indefinable conditions that are promptly cured with anthelmintics.

Seat worms are more promptly cured with solution of quinine than quassia chip. There should be enough of the solution used to dilate the lower bowels to uncover the worms. In children, the use of salt water generally promptly cures.

Tonsilectomy

Thousands of people are below par because of diseased tonsils. Also hundreds of children have had their tonsils taken out that did not need it. If all children could be examined by a throat man, and their tonsils treated or removed, the general practitioner would have much less work. In the large centers this work is partially done, but in the rural neighborhoods, none but the very worst cases are sent to the specialist. Many indefinable conditions are due to bad tonsils, and the child is handicapped by lack of breathing power, and the absorption of poison from necrotic tonsils. School nurses are doing good work in finding these cases and referring them to the family

physician. Often the cases need attention from the specialist, but often the child has had tonsils merely temporarily enlarged, and needs no surgical attention. However the good work of calling attention to the throat as a source of many bodily diseases is done, and the school nurse deserves commendation for her zeal in the work.

Middle Ear Trouble

The general practitioner usually gives entirely inadequate attention to the trouble from middle ear disease, and the child is permanently injured by this oversight. On the other hand, there are too many ear drums pierced by unskilled men looking for surgical instead of medical cases.

Hysteria

The indefinable nervous and mental manifestation known as hysteria is one of our commonest diseases. It generally is hard to handle. It tries one's patience to the utmost to care for these unfortunate beings. Usually there is some physical derangement back of it, but it is hard to find. The main element in its management is confidence in the medical adviser. Then one can usually assure the patient and the friends that a cure is possible.

Getting the physical condition fit is the main object, then the nervousness can be managed better. There is one drug that acts extremely well in these cases, especially where there is a desire to get away from people and be alone, or when there is a dread of impending danger, or a continual desire to look on the dark side of everything. This drug is pulsatilla, a preparation made from the green plant. This remedy has many uses in many nervous conditions due to derangements of the reproductive functions, in male and female. It should have a wider use among the physicians generally.

Focal Infection

Focal infection plays such an important role in obscure conditions that we now think of it as one of the first things to look for in our diagnosis. The location of the infection is often found in the teeth, and we are apt to lay the blame there and sacrifice the teeth, when the focus is somewhere else. I have known a whole mouth of good teeth extracted for the expected relief of the obscure conditions, when as a matter of fact the nidus was pulmonary tuberculosis. The attending physician jumped at the conclusion that because the most cases of focal infection can be laid to the teeth, that this case must be due to them.

So many cases of rheumatic conditions are manifestations of focal infection that it is especially important that we look for the point, and remove it if possible. It is mighty convenient to tell the patient he has a "touch of rheumatism," and prescribe salicylates, and let it go at that without taking the trouble to actually find out where the trouble lies. Then when the patient gets tired of the treatment with scarcely no relief, he goes goes over to the neighboring physician and lays in a long complaint of doctoring with Maxwell for weeks with scarcely any relief. Focal infection is receiving much deserved attention, and there is being worked out means of proper diagnosis and treatment that are of great value to us. The writer had the disgrace of four months of suf-

fering and loss of time due to neglected teeth.

The Prolapsed Cord

Sometimes the prolapsed cord gives greater anxiety than almost any other obstetrical complication. Generally the cord can be replaced manually, but at times even with deep anæsthesia and the whole hand in the vagina, the cord can not be replaced, and we lose the baby. Then on our records we write: 1784 births, 325 deaths. Some of the deaths are no doubt due to poor midwifery.

Pituitary Extract

In our obstetrical work we have the powerful pituitary extract to help us out. This drug is so active that it is not used at all by some obstetricians. It is not allowed in Bellevue. It should not be allowed in the obstetrical bag of the man without discretion—the man that does not know how and when to use it. If improperly used, we will occasionally get a still birth with no assignable cause.

The man that gives this drug when the os is not fully dilated, or when there is a dense perineum, or when there is any bony obstruction, or when a big head is not moulded, is the man that should not have the drug in his kit. The man that gave four hypodermics of one c.c. each when the presentation was transverse should have no obstetrical kit at all. Pituitary extract and horse sense make a good team that never balks.

There probably is no other calling in life that requires so much mental strain to meet the varied conditions as does the practice of general medicine. All medical men know this, but it is not appreciated by many of our patrons. Often the doctor is looked upon as a cormorant or as one whose income is extracted from the hard earned money of the poor man, and is the object of envy or jealousy of those that he has the most befriended.

A story is told of Dr. H. D. Hatfield while doing contract mine work in his early days. He was riding along the road, passing a group of men, and one of them said: "What damned doctor is that?" Dr. Hatfield got off his horse, gave him a punch under the chin, sending him head over heels, and said: "Now you know which one it is!" and got on his horse and rode on.

At times we feel like following the example of Dr. Hatfield. Yet we pass them by as a part of the wages paid by the unappreciated ones that have been helped in time of need. Our better nature is reached when we receive the kindly word and pleasant smile of those we help, and the smaller slights are swallowed up by the overwhelming preponderance of those who believe in us, and their expressions of good will and kindly feeling that come from every side.

POST GRADUATE MEDICAL EXTENSION IN WEST VIRGINIA

By M. L. BONAR, M. D.
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Read Before the West Virginia State Medical Association, Wheeling, May 13, 1924.

As is evidenced by the very splendid program to which we have listened during the past two days, we know that no profession is making more rapid progress than our medical profession. No one is more

conscious of this progress than our own members, and no one realizes more keenly how difficult it is to keep pace with it than our great group of doctors who are engaged in the general practice of medicine. With conscientious zeal we read the medical literature and attend medical meetings, in order that we may catch some of the crumbs of medical wisdom dropped by some of our more favored and more learned brethren. But even with this we are are not satisfied, so every year finds many a one of our doctors going away to some distant clincal center to spend a few weeks or months in order that when he returns he may serve his fellow man a little better—that he may be just a little better doctor.

But the great majority of our fellow practitioners, for one reason or another, cannot, without great sacrifice leave their practices, even for a few weeks, to go away to do postgraduate work — to learn things new or to brush up on things long forgotten. To meet successfully just such a situation, post graduate medical extension is being established in West Virginia.

What is our method of Post Graduate Medical Extension? The so-called "North Carolina Plan," (A. M. A., June 9, 1923), has been adopted as best fitting our local needs. It is, briefly, as follows:

Five or six clinics are organized in a circuit of neighboring towns. The instructor in charge passes from one clinic to another, making the complete circuit in one week, and conducts each local clinic on the same day of each week; for example: he holds a clinic in Morgantown on Monday, Fairmont on Tuesday, Clarksburg on Wednesday, and on around to Parkersburg on Friday, and Moundsville on Saturday. The course continues eight weeks, and is confined to one major phase of medicine, such as Pediatrics, Internal Medicine, Nervous Diseases, or Skin and Cancer. The plan for each clinic is as follows:

Duration—at least two hours.

First half — didactic lecture by the instructor.

Second half—devoted to the clinic proper, where cases are presented from the physicians' private practices. (Emphasis, here, is laid on the fact that the cases are presented by a local physician, and that the visiting instructor is not catering to the layman as such. The idea, of course, is to give the physician the benefit of all the help of a specialist—and only incidentally is the patient benefited.)

Last summer such a course was conducted for the first time in West Virginia. The subject chosen was Pediatrics. The instructor was Dr. P. E. Luecke, from the Children's Hospital of Philadelphia. It was presented at the five centers, Morganotwn, Fairmont, Clarksburg, Weston, and Buckhannon. Six clinics were held at each place. Eighty doctors were enrolled. The general average attendance of the doctors for each center varied from 45% to 93%—Weston leading with an enrollment of 16 doctors.

After the close of the clinics, a questionnaire was sent to each physician enrolled to secure suggestions regarding the future conduct of these clinics, and to find out whether or not they were really worth while. The following questions were asked:

1—What phase of medicine would you prefer next?

2—How many weeks should the course last?

3—What two hours of the day would be most satisfactory?

4—At about what time (in summer) should the course end?

5—Name a school you would like represented, or suggest a specific individual, to present the course named.

6—Give your frank criticism of the course recently presented, with suggestions for improvement.

7—Give your candid opinion as to the desirability of continuing this work in West Virginia.

Of the eighty physicians enrolled, forty-three answered. Forty-one approved of the course given and said the work should be continued. Internal Medicine was chosen as the next course to be given—to last eight weeks. Many valuable suggestions were made which we are following.

Therefore, over the circuit covered last year with the course in Pediatrics, there will be this year one in Internal Medicine. The circuit will be extended also—to include centers at Parkersburg and Moundsville. Dr. R. W. Scott and Dr. M. A. Blankenhorn of Cleveland City and Lakeside Hospitals respectively, and Western Reserve Medical School, will be in charge of these clinics.

A similar circuit is being established in the southern part of the state, with centers in the following cities: Charleston, Beckley, Bluefield, Welch, Williamson, and Huntington. These clinics will be on the Diseases of Children, will continue eight weeks, and will be under the personal supervision of Drs. H. J. Gerstenberger and Charles W. Burhans, of the Western Reserve University Medical School.

It is to be remembered that each of the meetings consists of two distinct parts: (1) a didactic discussion by the instructor; (2) the clinical conference proper. The tentative programs for these series of pre-clinic lectures have been prepared with a view of conveying sound, practical, working knowledge to the general practitioner. (The "specialists" and surgeons may learn a lot here, too.)

These clinics are proving themselves to be an excellent thing, by rendering valuable services to members of our profession who can secure them in no other way. These clinics, too, have at least three distinct advantages over those existing in the more remote highly organized centers:

1—A greater number and more extensive distribution of physicians are reached.

2—The clinics are conducted under conditions more closely simulated local physical conditions. (Elaborate laboratory and other diagnostic apparatus is usually not at hand.)

3—The patients examined are from the attending physicians' own practice.

Naturally, here, as in any other clinic, the big factor in making it a success rests upon the physician in charge. We have therefore been exceedingly careful in our selection of instructors, and if the doctors in the clinics this year show such interest in the work as was shown last year, post-graduate medical extension in West Virginia will soon become an established institution.

What, now, is the relation of this work to the State University, and

how is it financed? The Extension Committee is conducting the organization of these clinics as a voluntary service to the physicians of the state. However, no appropriation has been made by the state to pay the specialists who conduct the clinics. A small enrollment fee is therefore charged to meet this expense, but the cost and responsibility of organization, such as securing competent instructors, preparing announcements and programs, organizing the centers, collecting the fees, and paying the instructors, is borne by the University Extension Division. It is our hope that as soon as this work becomes favorably known the county medical societies will relieve us of a part of the work by organizing their own local centers. And I wish to state in conclusion that if a group of fifteen or more doctors located anywhere in West Virginia let us know by January 1st that they want such a center next summer, the probability is that they will get it.

THE APPARENTLY NORMAL APPENDIX

By CHAS. A. GROOMIS, M. D.

Read Before the Barbour-Randolph-Tucker County Medical Society at Elkins, April 18, 1924.

How frequently we see at operation an appendix which from external appearance seems to be perfectly normal. The serous coat shows no congestion, the contour seems perfect and there are no adhesions causing kinking. And we are inclined to say, "There is nothing wrong with this one." But on opening the appendix the picture is entirely different. The mucosa shows congestion and at one or two points there is a marked narrowing of the lumen, distal to which is a fecal concretion whose diameter is larger than the lumen of the appendix at the point of constriction, or the distal end is distinctly fibroid for ½ to 1 inch with this portion of the lumen obliterated. If such appendices were allowed to remain just because no pathologic condition were visible externally, the patient undoubtedly would have subsequent trouble.

In the last six years I have made a practice of opening every appendix which I removed or helped to remove. Occasionally in cases where the patient came to operation for other conditions and the appendix was removed as a matter of routine or at the request of the patient without any complaint referable to the appendix, none of these abnormalities have been found. But where there has been a history of repeated attacks of pain in the right lower quadrant of the abdomen even of short duration, or a definite history of one or more previous attacks of acute appendicitis, I have yet to see a single case where the appendix on section did not show at least one of the above mentioned abnormalities or the presence of a foreign body. I have noted also that most, though not all, of the fecal concretions found in these appendices show on section a foreign body in the center, around which the concretion has formed.

I do not mean to give the impression that I consider all pain in the right lower quadrant of the abdomen to be the result of some pathologic process, or condition, in the appendix because we know well

that other structures in this region may be responsible for the trouble, especially the ureter, either as the result of constriction or calculus, or both.

One case in particular to which I would like to refer was one which I saw about 5 years ago. A boy 10 years of age was taken with severe, acute, pain about 5 o'clock in the morning. From then till about 8 o'clock, when I first saw him, the pain recurred at intervals of 3 to 10 minutes, each paroxysm lasting from 2 to 3 minutes. In the interval between pains he seemed to be quite comfortable. Each time the pain would come on suddenly and he would scream furiously for 2 to 3 minutes. He said it seemed that something was sticking him and indicated the point of pain in the bladder region about one inch to the right of the median line with radiation to the scrotum and inner side of the right thigh. This made it appear that the pain might be due to a ureteral calculus located low down in the right ureter. In the interval between pains, pressure at the point indicated by the patient elicited no discomfort, but deep pressure at McBurney's point caused him to scream and repeat that something was sticking him. His temperature was normal, pulse not accelerated, right rectus not rigid and a leucocyte count taken at this time showed no increase above the normal. Operation was suggested to the family because of the intense pain elicited on pressure at McBurney's point, but because there was no elevation of temperature and the child had not vomited, they preferred to wait. When seen about 2 P. M. the same day he was still having pain of the same character as described but in addition felt a constant soreness during the intervals between the acute pains. The temperature was 100, pulse about 120, the right rectus was rigid and leucocyte count 10,500.

At operation about 2 hours later the appendix showed moderate congestion for about one inch at the distal end and slight distension, but did not look bad. It hardly seemed possible that this appendix could have been responsible for such intense pain. But on opening the appendix longitudinally the mucosa at the distal end was found markedly inflamed and contained about 15 or 20 minims of sero-sanguinous fluid and three foreign bodies. One apepared to be an ordinary carpet tack without the head; the other two were pieces of fine wire, one about a quarter of an inch and the other about three quarters of an inch in length. This seemed quite sufficient to account for the intensity and the character of the pain.

The point I wish to make is this: Had that abdomen been opened in the morning soon after the patient was first seen, the appendix likely would not have shown any congestion of the serous coat and not even slight distension of the distal end, and we would have said: "There is nothing wrong with this one."

ANNOUNCEMENTS AND COMMUNICATIONS

Charleston, W. Va.,
July 7, 1924.

DR. JAS. R. BLOSS,
Huntington, W. Va.

Dear Doctor:

A few days ago I noticed in the New York Times an account of the

death of Dr. Robt. W. Lovett, of Boston, Mass.

Dr. Lovett's books and writings have made his name known the world over. No living man today has had such a vast experience in the study and management of infantile paralysis as had Dr. Lovett. Within the past year he reported his observation on over five thousand cases of that disease. In April of this year he reported in the Journal of the A. M. A. an improved method of treatment for structural scioliosis which no doubt will be universally adopted.

In the spring of 1918 it was my good fortune to be assigned by the Surgeon General of the Army to Harvard Medical School for special instruction under Dr. Lovett, and my association with him was indeed a rare treat for me. He was a wonderful teacher, a gifted scholar, a skillful surgeon, and a true gentleman. His life was one really worth while.

Yours,
E. BENNETTE HENSON.

July 5, 1924.

West Virginia Medical Journal,
James R. Bloss,
Huntington, West Va.

Dear Editor: Will you be kind enough to give space sufficient in your esteemed periodical to bring to the attention of former Illinois men and women now resident in your vicinity the matter of the "History of Medical Practice in Illinois," now being compiled under the sponsorshp of the Illinois State Medical Society?

As this history will extend back through a period of 250 years, you will readily understand the difficulty that besets attempts to secure data, both narrative and pictorial, about the early Illinois doctors. The enclosed literature will give you an idea of what is being attempted. Please use as much as you find possible and deem proper with the assurance that at any future time the favor will be reciprocated. As we have only an extraordinarily brief time in which to get this material ready for the printer, the earliest possible publication will be appreciated.

Sincerely yours,
The Committee on Medical History.
Charles J. Whalen, M. D.,
Chairman.
Also Editor of the Illinois Medical Journal.

ATTENTION, FORMER ILLINOIS DOCTORS, ATTENTION

Will any and all doctors, former residents of Illinois, or descendants of pioneer physicians of the "Illinois country," communicate at once with the Committee on Medical History, Illinois State Medical Society, No. 6244 North Campbell Avenue, Chicago, Illinois?

Under the sponsorship of the Illinois State Medical Society there is in preparation "A History of the Medical Practice in the State of Illinois" that must be to the printer at an early date. In order that this volume may be accurate and complete, all possible assistance is asked from every source, as to personal data and experiences, including diaries, photographs and similar documentary momentoes of pioneer Illinois doctors and of progressive phases of medical practice, as well as of achievements in fields other than those of medical science. Prompt return in good condition

is promised for anything loaned the committee, the personnel of which is:

O. B. Will, M. D., Peoria, Ill.

C. B. Johnson, M. D., Champaign, Ill.

Carl E. Black, M. D., Jacksonville, Ill.

George A. Dicus, M. D., Streator, Ill.

James H. Hutton, M. D., Chicago, Ill.

Charles J. Whalen, M. D., Chicago, Ill., Chairman.

The scope of the volume will range from the discovery of Illinois to modern times. Through this period of over 250 years there is much of thrilling interest to be detailed. Collection of the human interest data can come only from the families or closest friends of the pioneers, many of whom long ago removed to distant sections of the United States. Through the kindness of editors of various medical journals, it is hoped to reach those who may be able to loan valuable material to the compilers who guarantee careful guardianship of anything sent for publication.

Some of the subjects touched will be: Physicians accompanying early explorers; government surgeons and physicians in attendance at the forts; early medicine in Illinois; theories of healing from the days of the Aborigines through the mound-builders; French and English explorers; the ante-boundary days; sporadic settlers; medical attendants for the covered wagon; herb doctors; primitive surgery; medicine and missionaries; migration of pioneer physicians to new territory; the "circuit-riding" and "saddle-bag" doctors and their burdens, triumphs and perils; pioneers as "utility citizens;" Illinois men in war time—there are four conflicts to be considered since the opening of the nineteenth century; Illinois medical men away from medicine, i. e., in industry, in science, in belles-lettres—art, music and literature.

Photographs are especially desired. Also copies of letters, statements of "cures" and "new methods," diaries and the like.

Charleston, W. Va.,
June 26th, 1924.

Dear Doctor:

Enough interest has been shown by the physicians of the State to justify the completion of arrangements for holding a meeting for the discussion and clinical exhibition of venereal diseases. Replies to the Bureau's letter of May 7th with with reference to the subject indicate that at least seventy-five physicians will be in attendance. This number should make the meeting a success and it is hoped that many more will come. Should you decide later on to be with us, by all means do so whether you have written to that effect or not—"the more, the merrier."

A complete program will be mailed you two weeks in advance of the meeting which will be held August 5th, 6th and 7th, in Charleston.

Very truly yours,

W. S. ROBERTSON,
A. A. Surgeon, U. S. P. H. S.
Director, Bureau of Venereal Diseases, State Department of Health.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, Huntington - Editor-in-Chief

WALTER E. VEST, Huntington
C. A. RAY, Charleston
HARRY M. HALL, Wheeling
} Associate Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

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All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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ALL MUST WORK NOW!

This editorial is addressed to those who sit back and wait. That is, sit back when something dangerous looms on the horizon of their chosen daily activities. They feel certain, as they say, that those fellows who seem to like that kind of thing will jump at the chance to get into the spotlight and fight again, so why should they worry. Somebody generally does rush in, but not by any means because they crave the gesture.

Sound as it may, the foregoing is not a criticism of those who sit back. Analyze them as you may, it will be found that most Americans, although in foreign parts they are not so regarded, are really backward and reticent. They will put up with most any abuse, rather than make a scene. Take their patient detours on public roads left carelessly closed for long periods. Without any statistics we would hazard the guess most all our political abscesses, festering day after day, are as they are because Americans are

likely to be too tolerant. Politicians know this only too well. They can even persuade the great political body it needs the carbuncle. However, they miss it if they count on this too long. Nowhere does this tolerance, so characteristic of our citizens, reach the point it does in the medical profession. Medical men are not like other citizens, because each doctor practically makes his own decisions from day to day in his chosen profession. All other men and women except those at the very top in most all their daily movements have in some way or other either a precedent or a diagram, either a rule or some other factor inanimate or human, to make his or her decision. For this reason medical men are engrossed, obsessed, centered, with the case in hand. The busier the man the more engrossed, obsessed, centered. It follows he cannot apparently digress against other activities, even if one of these activities involve his daily bread. Small wonder that this shackling to his daily calling, coupled with his inherent American reticence, does not make of him a poor fighter for his own rights. And one might even go so far as to say that when legislators, by careless bungling, make it necessary for him to leave his work to go and fight for or against laws aimed at public health, they are taking his mind from his work to the detriment of the people. So your average doctor worried with the new crop of cases daily appealing to his individual decisions, is not likely to show much concern if he reads his profession is being undermined. He has a vague notion there has always been fellows who seemed to take naturally to these defense movements, and Heaven will provide them again. So he says, "As I know he always likes to, (and I do not believe he is very busy anyway), why let George do it." Anyway, "Things are all right as they are."

Let us consider these two views collectively. They could have been said in any age and period of medical procedure. Had they at any time prevailed, we would have had no progress. Furthermore as nothing is stationary, retrogression would at once step in.

Next—Who knows how long George is going to do it? If a crash would come and the bars go down, and chaos rule in the curative profession, "the Georges" will most generally be found to be the ones that could withstand the shock, and be least affected. For this reason we believe engrossed, obsessed, or centered, as we may be, we nevertheless can find part of the day which we must devote to upholding their hands, else they (these Georges) may grow weary of our indifference, and suddenly cease their efforts.

Next—How is your red blood count? Is it low? When you heard that a handful of your fellow servants, journeying to Charleston, were openly flouted by a lawyer, who represented the other side, and your whole scheme of learning laid open to those bland remarks, suavely given, yet oozing and dripping with subtle ridicule and characterized to make an audience feel that most of what you stood for was built up of a fabric of deception and failure—and that by years and years of tradition you had now made it almost impossible for any band of prophets and healers, however ben-

eficial, to step in and liberate the populace from disease and death—DID IT GIVE YOU A REACTION?

Furthermore, do you know that when the politicians saw so few of us there, they knew they could ignore both us and you? This writer had a talk with one. We intimated that we would pass the whole thing on to all of you. This moved the wise one to mirth, and even to this day we feel the writer and Charlie Chaplin sit high in his estimation as premier mirth provokers and purveyors of fun.

Some of us say, "These fellows are a pretty good sort after all," and it would better for us to be "Too proud to fight them." We never cared much for the remarks of our mothers (along with yours too) that she was more pained than we were when she punished us. Still it was true. Nor do we care for the saying of the Pharisee, "Lord I am glad I am not as other men are," which was not true. But we believe in fighting for this primary factor of a genuine ground work of education ere you try to heal and cure is THE BEST THING FOR THOSE WHO DO NOT AGREE WITH US, and furthermore, it is more disgreeable to us than it is to them when we undertake to fight for this principle, and show it as truth to them. We have just shown most medical men would rather engross, obsess, center on their work than fight. But this matter of knowing the body and how it works both well and unwell is as vital a thing to them as Christianity is to the religious. They must fight. Nor do they do it as the Pharisee who would say, "I am thankful Lord I know more and am better." They worked more, that is all, and it has been found it takes three years on an average to get this EDUCATION.

There may be somewhere some short cuts in any major worldly movement; if so we have never had them demonstrated to us. Short cuts to miraculous cures flare up as 606 did in our own profession. They never turn out that way in the long run. Erlich thought one dose. We know sixteen over many weeks is lucky, and then only with the aid of mercury many years old. Insulin, wonderful, brilliant in its activity, is yet a thing of time. No one can come along and make a human being know all anatomy, physiology, histology and PATHOLOGY, in a few weeks, when it has taken the average man several years for centuries. Let us be sensible. That is all we ask—this groundwork. How you make this thing called PATHOLOGY COME BACK TO ANATOMY and PHYSIOLOGY is of small concern to us.

So you that sit back and center, obsess and engross, day after day, sure in your duty well performed to your community, have a care for yourself and your brother toiler. Life is so made that every so often a cycle turns round to where you must defend your title like some PUGILIST in the Ring. Is it worth your while or not?

Finally, can we not remember this as we get ready for the coming election and the legislators? The closer we are knit, the more we move en masse, en bloc, call it what you will, THE LESS WE WILL HAVE TO DO.

If you have a good representation at Charleston, and it is known that it is a fact that most of the others

will come if needed, as soon as they get the word—THEY WILL NEVER HAVE TO COME.

HARRY M. HALL

DUES

The editor of the Journal is placed in more or less of an embarrassing position, and it becomes a quandry as to just what is the advisable course to pursue. There are more than 250 men whose dues were paid for 1923, who have not paid for 1924, or at least it has not been certified to the editorial office by the state secretary, that he has as yet received their dues from the secretaries of the local organizations.

This is an exceedingly important matter as it will be necessary to remove these men's names from the mailing list of the Journal at once if the dues are not paid. This is in compliance with the federal postal law, which is very empathic in regard to the continuing of a paper or periodical to a subscriber who has failed to pay for it.

There is another angle to this matter also, and that is if a man who has failed to pay his dues by April 1st, should have a malpractice suit brought against him subsequent to that time he would not be entitled to receive the benefits of the defense fund of the State Organization. This is a matter which is not to be overlooked by the members, and from information reaching us it seems that there is a constant open season on physicians, as many malpractice suits are being brought all over the country, as well as in West Virginia. None of us can afford to be without the fold at this time.

The medical profession certainly must stand together, and we must present a united front at all times. The members who have not paid are earnestly urged to give this immediate attention.

PREPARATION OF MEDICAL PAPERS

Any influence which tends to lead doctors to use more care and thought in preparing medical papers meets with a hearty welcome from the editors of medical journals. The smaller the journal the more personal care must the editor give the material published in it, and many an underserved gray hair or wrinkle of age is the result of carelessly prepared medical papers. Very few papers come to this journal that do not have to be read word by word, with numerous corrections of punctuation, spelling and sentence construction.

If a medical paper or report is worth the paper it is written on, it is worth careful preparation, and that means it should be typewritten, with correct spelling, punctuation and paragraphing, double spaced on standard size paper, with ample margin. Authors, or correspondents, are asked to watch these points.—Ed. So. West Med.

THE COMMERCIAL TAINT IN MEDICAL ADVERTISING

"A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession, an individual assumes an obligation to conduct himself in accord with its ideals."

Thus the opening paragraph of the Principles of Medical Ethics of the American Medical Association briefly and clearly distinguishes between a profession and a business or trade. That there are those in the medical profession who are concerned more with the financial rewards that it offers than they are with the service it can give is, unfortunately, true. Such men form a discreditable but small part of the profession. The slump in moral values that followed the Great War has been reflected in the practice of medicine as in all other lines of human activity. Especially, however, has it shown itself at its ugliest in commercial life. This tendency is being shown at present in not a little of the advertising offered to the medical profession by the concerns that are selling apparatus, especially that for physiotherapeutic and diagnostic uses. Such firms, instead of devoting their advertising abilities to describing the points of superiority in the apparatus they have for sale, are stressing to the profession the idea that the purchase of such apparatus will increase the income of the physician by impressing the layman with the scientific attainments of the individual who would use it. It is perfectly true and obvious that the physician who better fits himself to give service to his patients will, other things being equal, be more successful than the man who does not make this effort. No decent man in the medical profession, however, thinks of adding to his armamentarium for the purpose chiefly, or even merely, of financial gain. To the right-thinking physician, an advertiser's appeal to buy a piece of apparatus because of the "psychic effect" it may produce on the patient is repugnant and insulting. Any firm that thinks it is going to obtain the good will of the medical profession by an appeal to the sordid is sadly mistaken. It is especially unfortunate that some of the makers of physical therapy apparatus should have descended to the gross commercialism just referred to. There is a feeling more or less that the makers of such apparatus have gone out of their way to cater to the followers of unscientific, so-called drugless cults. It is notorious that quacks of this class are purchasing physical therapy apparatus, which they are utterly incompetent to use, for the one and only purpose of impressing the laity with a show of erudition. Possibly the commercial experience of such firms with the cultists has lowered their ethical standards, and they have mistakenly been led to believe that the same bait that they offer to chiropractors, naturopaths, Abramsites and such riffraff will be swallowed by the medical profession. Therein they are deceived. The practice of medicine is a profession!—Editorial, Jour. A. M. A., July 5, 1924.

COUNTY SOCIETY REPORT

The regular monthly meeting of the Marion County Medical Society was held on Tuesday, June 24th, at 6 P. M. The following members were present: Drs. C. L. Holland, Parks, Henry, Johnson, Leahy, Clinton, Norris, L. N. Yost, Offner, Reidy, Orr, Waddell, Peters, and G. H. Traugh. Dr. Tom Hood of Clarksburg was the guest of Dr. Henry, and Dr. Frederick B. Utley,

a noted internist of Pittsburgh, was the speaker of the evening.

Dr. Utley is Assistant Professor of Medicine at the University of Pittsburgh. His paper was entitled "Arterial Sclerosis; Etiology, Pathology, Symptomatology, Prevention and Treatment." Dr. Utley's paper was excellent. He covered the subject thoroughly but briefly enough so that one could remember the parts brought out.

An excellent review of the preventive treatment, sane living, attention to prevention of infection, in short frequent health examinations, were brought out.

The paper was ably discussed by Drs. Waddell, Johnson, Reidy, Peters, L. N. Yost, Orr, Leahy, and Dr. Henry.

Following this Dr. Tom Hood of Clarksburg told some stories about some "Old Doctors" he had known.

The meeting then adjourned.

G. H. TRAUGH, Secy.

STATE AND GENERAL NEWS

MARION COUNTY

CLAUDE L. HOLLAND, Reporter.

Dr. Frederick W. Hill, prominent physician of this city, died June 7, at his home in 819 Locust avenue, Fairmont.

Dr. Hill had been in failing health for several years and had frequently consulted specialists in the East regarding his condition. He continued, however, to practice his profession until a short time ago, when he was forced to discontinue it.

For a period of 30 years, Dr. Hill had been employed as resident physician at Montana for the Consolidation Coal Co., and he was popular among his patients, owing to his strict adherence to duty. He was an active worker in the World War, and it was during that period that his health broke down. He very materially assisted the local Red Cross Chapter in its work in that section and was instrumental in rounding that community up to its quota in the various Liberty Loan drives.

He was a native of Norwalk, O., and later moved with his parents to Port Jarvis, N. Y. He was educated in the home schools and studied medicine in a Baltimore college. Soon after completing his studies, he came to this city and located. After practicing here for several years, he opened a hospital for the treatment of women's diseases in Quincy street and later took up the work at Montana, where he resided until recently.

Dr. Hill is survived by his widow, two sons and a daughter. Two sisters, who reside in Port Jarvis and Matamoris, Pa., are also living.

—

Twenty Fairmont physicians met in the Young Men's Christian Association building for the third class of a post-graduate course in medical science, given under the direction of the extension division of West Virginia University. Dr. R. W. Scott of the Cleveland City Hospital and Western Reserve University was the speaker.

This is the second summer that such courses have been given by the university, according to Dr. M. L. Bonar of Morgantown, director of the course. Last year, one circuit was maintained, but this year another has been added in the southern part of the state. Fairmont is one of six cities on the northern circuit, which comprises

Morgantown, Clarksburg, Weston, Parkersburg, Moundsville and this city. The lecturing physician is in Morgantown each Monday, here on Tuesday, and next in Clarksburg, and so on.

Dr. Scott will be here next Tuesday, and from then on until the course closes, Dr. M. A. Blankenhour of the Lake Side Hospital in Cleveland and the Western Reserve University, will conduct the meetings here. The speaker today lectured on internal medical treatment and the last part of the course will be devoted to discussing children's diseases.

After each lecture, a clinic is held, and the local physicians relate any puzzling cases which confront them. The instructor gives them help in diagnosing the case. The course provides training similar to that which is obtained from a post graduate course in any medical school, it is said, but the physicians are permitted to stay at home and do not give up their practice.

According to those in charge, the course was a success last year, and next summer it is planned to carry on the work in many small towns of the state, as well as the larger cities which are now served by the extension division of the university in this way.

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Born to Dr. and Mrs. Chas. W. Waddell, Fairmont, a daughter, on May 30th.

Dr. and Mrs. Luther C. Davis occupied their handsome new home in Coleman avenue, Fairmont, July 1st.

Dr. H. R. Johnson, Fairmont, was called to Ronceverte by the serious illness of his brother.

Dr. L. B. Burke, of Fairmont, was recently operated upon at the Cook County Hospital.

Dr. J. C. Collins, Fairmont, attended the meeting of the A. M. A. in Chicago in June.

Dr. H. H. Carr, Fairmont, was in Baltimore for treatment in the Johns Hopkins Hospital.

Eugene Holland, who is a student in West Virginia University, is home to spend the summer with his parents, Dr. and Mrs. C. L. Holland, at their home in Locust avenue, Fairmont. He has completed his pre-medical course in the university and will enter the Harvard Medical School this fall.

Dr. Carl Raver, of the Bureau of Vital Statistics, State Department of Health, addressed the students at Fairmont Normal recently concerning communicable diseases as allocated by the United States Department of Health.

A party headed by Dr. H. S. Johnson and Dr. C. W. Waddell, of Fairmont, has gone to Capon on a fishing trip. These are members of a local club which has a fine house at one of the best fishing points on the river.

Dr. J. C. Broomfield, of Fairmont, arrived home from Baltimore where he had been called to see Dr. W. C. Ogden, who is ill in a hospital there. Dr. Ogden still continues very ill. He was taken sick some weeks ago.

A Fairmont and Clarksburg train struck an automobile owned and driven by Dr. J. E. Offner. Dr. Offner was slightly hurt and the automobile was badly damaged.

Dr. E. W. Howard, of Fairmont, was the guest over the week-end of the Rev. and Mrs. W. D. Reed, at

their summer home at Mountain Lake Park.

Dr. and Mrs. H. S. Keister, of Fairmont, have returned from a six weeks trip to points in California and intermediate points of interest. They visited Mrs. Keister's brother, Arles Miller and family in Los Angeles. Dr. Keister also attended clinics in St. Louis, Mo., on his trip out to the coast and returning was in attendance at the celebrated Mayo Bros. institution, Rochester, Minn. They took in the Grand Canyon, of Arizona, Yellowstone National Park and many places of note.

Dr. and Mrs. E. P. Smith and family, of Fairmont, who have been sojourning in Arizona, Texas, and California for the past several months, are expected to return home soon.

Dr. and Mrs. Arthur J. St. Lawrence, of Fairmont, have returned from an extended eastern automobile tour. They went to New Haven, Conn., where the former attended the reunion of his class and then spent several weeks in New York City, where Dr. St. Lawrence took post-graduate work and specialized in the treatment of eye, ear, nose and throat diseases.

Mr. and Mrs. Herbert Young and son, Joseph, and Miss Maud Adams have returned to their home in Boston, Mass., after a visit of a week with Dr. and Mrs. Claude L. Holland at their home in Locust avenue, Fairmont. Dr. and Mrs. Holland had also as their guests over the week-end, Mr. and Mrs. Clyde Holland of Pittsburgh.

Morgantown, W. Va.,
July 8th, 1924.

Dr. James R. Bloss,
Editor W. Va. Med. Jour.
Huntington, W. Va.

Dear Doctor: I see by the last Journal you are giving us fellows rats for not sending in news from our part of the state.

There were thirteen of our men at the Wheeling meeting, more than any other town in the state except Wheeling. There were five at the Chicago meeting. We always manage to send a good representation to all the medical meetings we are supposed to represent.

Our medical society is in first class condition. Our papers this year have been better than usual. We expect to increase the number of meetings shortly. Our next meeting in August will be put on by the Marion County Society. Our officers will preside, and let the Marion County doctors put on the program. Then the next month the Monongalia men will go to Marion County and put on a program for them under the direction of their officers.

The University Extension Clinic has been in progress here for several weeks, and has a good attendance and doing good work.

The Supreme Court granted Dr. J. W. Hartigan an alternative writ of mandamus, and our Society officials were commanded to appear in Charleston in June to show cause why they should not reinstate Dr. Hartigan in the medical society. Our defense was prepared by ex-Governor Glasscock, but Dr. Hartigan's attorneys were not ready to appear before the court and it was put off until September. It is our belief that we will have no trouble

in sustaining our position in the matter.

No decision has been rendered by the Supreme Court in the chiropractic case.

Yours fraternally,
C. H. MAXWELL.

OHIO COUNTY

HARRY M. HALL, Reporter

The Academy of Medicine has again looked into some property. It is a striking fact how actually poor and timid doctors are when it comes to a matter like this. While this modern generation of medical men has gone a long way in making us more like real brother officers, tradition still stalks abroad when it comes to a big undertaking where we will all share alike. Our difficulty is in finding a big enough auditorium in a piece of property to accommodate a crowd without feeling we were paying for a thousand acre coal tract. Eventually we will find one.

Dr. Will Cracraft is in "White Sulphur" playing golf. It is a matter of commendation that one doctor at least in Wheeling has been successful enough in his practice to stay more than one day at White Sulphur.

Dr. M. B. Williams returned from an automobile trip through West Virginia and Maryland. The doctor adds his voice to those who believe it great to see West Virginia first.

Dr. George Viewig went out with the Kiwanians to Denver and "The Yellowstone." From what George says, "This is the life," and while this scribe has been out West several times, he believes this is one of the best trips a doctor can take to rest himself. In looking the matter over we find you can leave Chicago and be back in fourteen days, having gone through "The Yellowstone," "Rocky Mountain Park," Salt Lake City and Ogden, all this for $216.00 from Chicago. This includes every single expense. For $27.50 two days to Pikes Peak, Colorado Springs can be added. We are not advertising railroads. It certainly did wonders for George Viewig, and he heartily recommends it. If this reporter can strike some spring of resources the whereabouts of which he does not know at present, he will take this trip as he believes mountains rest a weary practitioner better than anything else.

Dr. Arthur K. Hoge, Grand Past Master of the Modern and Excepted Order of Scintillating "Bronchoscopists," or words to that effect, is in Europe. We try to keep envy out of our mortal makeup, so much of which they say is composed of water, but envy will creep in. When we see the opulence and splendor of ear, nose and throat men, and also reflect on how soundly they are probably sleeping when we have to go out at 2 a. m., we must say the sound of a crashed and broken commandment about "Thou shalt not covet," is likely to reach the outer walls.

Summer has made no difference in either hospital, and the list of operations posted for the day still continues to look like a perforated music roll.

The "Rotary Club" again conducted a successful clinic for crippled children at the Ohio Valley General Hospital. Dr. Walter Stern of Cleveland was the outside man. Whatever else these clinics do, they certainly do demonstrate how well

surgeons can work together. We do not recall more amicable relations existing in any body of men, nor better, nor quicker work. At these clinics a number of outside men in other walks of life have been present, and as a prominent lawyer said to us, "It was a revelation to him how cheerfully and willingly and evenly doctors were getting to conduct their work together, and he doubted if any activity among men could boast of better results silently and quickly achieved."

Dr. Robert Reed returned from a short vacation in the East. Dr. Reeds flits off every little while now and turns up younger than ever.

Nothing more has been done here to promote the acquaintance of doctors' wives with each other. We hope the Fall will see something accomplished.

Dr. Bippus appointed a committee to take care of legislative work. It consists of McLain, MacGregor and Hall.

We are going to take notice of a little matter which happened as an aftermath of the State meeting. The committee having the whole matter in charge, known as the Executive Committee, was informed one evening by one of their number, well versed in such things, that certain bills were to be charged to the State Society. This committee in all innocence proceeded to do this, after first paying most all of them and then referring them on. They did this believing it the orderly, proper thing to do, and in no sense to unload a part of their obligation. They had ample funds and this was not therefore any search for expediency. They find considerable opinion to the contrary. The member who so advised them, still maintains it was the custom. The Executive Committee wants it distinctly understood that they thought they were doing the accepted customary thing, and were very much chagrined to discover that their attempt to be proper and usual was evidently anything but.

Miss Nell Robinson, graduate of the Ohio Valley General Hospital, has come back to it as superintendent of nurses. She acquitted herself so well in Logan that the call went out to her to take the place of Miss Jessie Clark, who resigned to go back to Canada. It is always gratifying to see someone go round the circle as Miss Robinson has. The Ohio Valley General Hospital is in class A, with free dispensary and all other requirements. To manage it requires a great deal of resources, and as far as she has gone, Miss Robinson has given splendid satisfaction.

Miss Ada Underwood becomes assistant superintendent, taking the place of Miss Cyples—married.

The new model 1924 in the Gilmore family, born at the Ohio General Hospital, is a boy.

Dr. Bippus is now chairman of the staff of North Wheeling Hospital.

The following named officers of the Medical Officers' Reserve Corps, United States Army, have been ordered to active duty July 7-21, inclusive. They will report for training to the Medical Field Service School, Carlisle Barracks, Pennsylvania.

Colonel George Fordham, Wyco, W. Va.

Lieut. Col. John H. Shaffer, Montgomery, W. Va.

Lieut. Col. Walter E. Vest, Huntington, W. Va.

Major Oscar Beer, Buckhannon, W. Va.

Major Orra F. Covert, Moundsville, W. Va.

Major Lurty N. Harris, Wheeling, W. Va.

Major Hugh G. Nicholson, Charleston, W. Va.

Miss Helen Golden, daughter of Dr. and Mrs. W. W. Golden, is one of the few young women to receive the degree of Master of Arts from John Hopkins University at the regular graduation exercises.

The degree was awarded to Miss Golden on two years' work in the Department of Social Economics, under Prof. Hollander, and a successful thesis entitled "Care and Education of the Crippled Child in Baltimore."

Miss Golden holds a Bachelor's degree from Goucher College. Her early eduation was received in the public schools of Elkins, where she started in the primary and passed through the grades and high school. Elkins and the public schools are proud of Miss Golden's record, and extend congratulations.—Daily Inter-Mountain, Elkins, W. Va., June 9th, 1924.

The Atlantic City meeting of the American Psychiatric Association, held in June, re-elected Dr. L. V. Guthrie, superintendent of the Huntington State Hospital, as auditor for the term of three years.

Dr. R. J. Wilkinson, chief of staff of the Cheaspeake & Ohio Hospital, Huntington, recently visited St. Louis. He was accompanied by Mrs. Wilkinson.

A hospital, the first to be established there, will open in Kenova on or about August 1, all plans for the new institution now being nearly completed by prominent business men of Kenova, who are backing the project.

The hospital, which will be located on the corner of Sixteenth and Chestnut streets, in the heart of the town, will be known as the Rife-Ferguson Hospital.

Work upon the new building for the hospital already is under way, with completion expected about the latter part of July. It is being constructed along the lines of some of the country's finest hospitals, but on a smaller scale.

There will be sixteen rooms, including the operating room, and it will be modern throughout. Equipment will be the best that can be secured and will include the latest operative and diagnostic apparatus and appurtenances.

The new hospital will be owned, controlled and supervised by Dr. J. W. Rife, of Kenova, and Dr. J. W. Ferguson, of Westmoreland. Dr. Rife, who has been practicing in Kenova for twelve years, is a graduate of the Louisville College of Medicine. His practice now extends over all of Wayne county.

Dr. Ferguson is a graduate of Ohio State University. He spent a year as an interne in the Protestant Hospital at Columbus, Ohio, following his graduation, and for two years he was physician for the Consolidation Coal Company at Jenkins, Ky. He recently established offices in Westmoreland.

The cost of the new hospital building or the amount involved in the enterprise was not announced.

The new hospital when completed, will relieve some of the pressure upon Huntington institutions. It will likewise be a great asset to Kenova, inasmuch as all accident and sick patients of that city must either be brought to a Huntington hospital or taken to an Ashland institution.

Mrs. W. R. Andrews, aged 65, passed away on June 27 at her home in Mannington. Mrs. Andrews was the wife of Dr. Andrews, well physician.

S. W. Hill of Smithfield and his son, George Hill, butchers, were arrested on July 10 on manslaughter charges in connection with the sale of salve, which, it is alleged, they used upon persons afflicted with cancer. The arrests were ordered after three of the patients died. According to the authorities, the butchers had many patients in Western Pennsylvania, West Virginia and Maryland.

Dr. O. F. Covert attended the Rotary convention in Canada. Mrs. Covert accompanied him as well as his son, Dr. Leo Covert, and his wife.

Dr. B. T. Bone is spending his vacation in Michigan.

Dr. J. C. Peck, with a party of friends, is touring the Eastern and New England states.

Dr. Page Dameron Barlow was elected one of the Vice-Presidents of the B. & O. surgeons at the recent meeting in Pittsburgh. This means that he soon will be President. The members of the Marshall County Medical Society are happy indeed because this deserving honor has come to one of their worthy members.

Dr. D. B. Early and family have returned home after three months in California. "I like California fine but I like West Virginia better," he declared in announcing his intention to remain in Moundsville.

At a gathering of friends, the guests were surprised by the announcement of the marriage at 4 o'clock of Dr. A. Filmore Compton, son of Rev. and Mrs. M. F. Compton, and Miss Evangeline Henderson, daughter of Mr. and Mrs. E. E. Henderson. The marriage was planned as a surprise event. While the guests were to be enjoying the diversions of the party, Dr. M. F. Compton, father of the groom, was to appear and conduct the wedding ceremony. The newly married couple left on an eastern auto trip of several weeks.

Dr. A. F. Compton is one of Moundsville's leading physicians and surgeons and is the city health officer. The bride is one of the most accomplished and popular young women of Moundsville. She is a graduate of Moundsville high school and a student of West Virginia University.

NEW AND NON-OFFICIAL REMEDIES

"Vita-Pep."—Vita-Pep is nominally put on the market by the Vitamine Products Co., of New York City, but actually seems to be put out by the Vitamine Food Co., Inc., of Westfield, Mass. The president of the Vitamin Food Co. is one Eugene Christian, who calls himself a food specialist. He has offered a "Course in Scientific Eating," in

which he showed his monumental ignorance of the subject he wanted to teach. Later, he was interested in an obesity treatment, the "Vaco Reducing Cup." Then he tried to sell oil stock to those on the sucker list. Then came the Vitamin Food Co., Inc., with Christian as president, and those on the sucker list were asked to buy stock in this company. In the earlier advertising, the product mainly stressed was "Vegex," which, according to the advertising matter, was a name that the Vitamin Food Co., Inc., had given to a British preparation sold across the water as "Marmite." Now comes the crowning achievement of the Vitamin Food Co., Inc. —Vita-Pep. The circular for this contained the statement in large letters that the preparation contains alcohol 16 per cent. According to the label, Vita-Pep, in addition to containing wine with an alcohol strength of 16 per cent, also contains pepsin, rennin and a concentrate of vitamin "B." The advertising circular states that Vita-Pep is a "Zestful New Health Tonic" which "Restores Youthful Vitality." According to the advertising, "Vita-Pep is pleasant to the taste and delightful in its effect—takes away that tired, rundown feeling and makes one feel vigorous, healthy and strong." What is the United States Revenue Department going to do about it?—(Jour. A. M. A., March 15, 1924, p. 907.)

Fat-Free Tincture of Digitalis.—Roth found that fat free tinctures of digitalis had no advantages over the U. S. P. tincture of digitalis. On the contrary, he found some of these fat free tinctures were so unstable that he advised manufacturers not to market them without stating the date of their manufacture on the label. "Fat free" tincture of digitalis was introduced under the belief that the fat from the leaf produced gastric disturbance; but Hatcher and Eggleston fed the fat to cats and found that it had no emetic action whatever. After an investigation of the subject, the Council on Pharmacy and Chemistry concluded that there is no essential difference in action between "fat free" tinctures of digitalis and the product official in the U. S. Pharmacopeia.—(Jour. A. M. A., March 16, 1924, p. 911.)

More Misbranded Nostrums.—The following preparations have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Montague's Petroleum Emulsion with Hypophosphites (J. Kyle Montague Medicine Co., Inc.), consisting essentially of an emulsion of petroleum oil, alcohol, water, gum, sodium and calcium hypophosphites and a trace of an iron compound; Blacko Kidney Tablets (Blacko Medicine Co.), composed essentially of hexamethylenamin, methylene blue, boric acid, potassium nitrate, potassium bicarbonate and plant extractive material; Dr. Rogers' Improved Rog-R-Pils (Digestive Chemical Co.), consisting essentially of iron carbonate, tansy oil, ergot extract and aloin; Fernet De Vecchi (Banfi Co., Inc.), containing essentially about 40 per cent of alcohol, 2.8 per cent of extractives from drug plants, including aloes, and a small quantity of alkaloid; Dr. Link's Golden Tonic (Dr. Link Medicine Co.), consisting approximately of epsom salt 39 per cent, nitric acid 1 per cent, potassium citrate 1.5 per cent, iron sul-

phate 4 per cent, and water 54 per cent; Dawson Springs H and H Water (H. and H. Water Co.), the "Natural Water" containing 4 gm. to the liter and the "Concentrated Water" 2.26 gm. per liter of dissolved mineral matter most of which was epsom salt; Oxidaze Tablets (American Oxidaze Co.), consisting essentially of sugar with potassium iodid and flavored with cinnamon, sassafras, camphor, menthol and wintergreen.—(Jour. A. M. A., March 22, 1924, p. 989.)

Horse Hair and Horse Hair Allergens.—To prepare horse hair and horse dander allergens, 10 gm. of the finely divided hair or dander are extracted with 0.2 per cent sodium hydroxid solution. Hydrochloric acid is added to the filtered solution until the isoelectric point of the dissolved protein is reached. The precipitate is collected on a filter, washed with acetone and dried. To the dried precipitate are added 88 c.c. of hundredth-normal sodium hydroxid and the mixture is shaken thoroughly at frequent intervals for twenty-four hours. To this, 12 c.c. absolute alcohol is added. The mixture is shaken at intervals for twenty-four hours. It is then centrifugalized and the supernatant fluid drawn off. This liquid represents 10 parts epidermal protein in 100 parts of solvent. This 1:10 solution is used to prepare weaker solutions by dilution with physiological solution of sodium chlorid. As a preservative, 0.5 per cent cresol is added.—(Jour. A. M. A., March 22, 1924, p. 991.)

Allonal: Roche. — Allonal (The Hoffmann-La Roche Chemical Works, New York) is "Allylisopropylbarbituric acid-Phenyl-dimenthyl dimethylamino pyrazolon." In the literature first sent out, it was stated to be a "compound" made by "chemically uniting allyl-isopropylbarbituric acid (37.5%) with phenyl di-methyl-dimethylamino-pyrazolon (52.5%) amidopyrin, i. e. in molecular proportions 1:2." Examination of Allonal tablets made in the A. M. A. Chemical Laboratory last year showed that, in water, the substance behaved as a mixture of allyl-isopropyl barbituric acid and amidopyrin and not as a compound. Furthermore, the percentage of the ingredients given were not in accord with the statement that they were in molecular proportions. The published reports on its use are favorable, but they apparently include no observations with controls. The evidence thus far available does not seem to prove (1) that "Allonal" possesses advantage over a mixture of allyl-isopropyl barbituric acid and amidopyrin, or even over one or other of its ingredients alone; (2) that the administration of allyl-isopropyl barbituric acid and amidopyrin in fixed proportion is desirable. The product has not been accepted for New and Nonofficial Remedies. (Jour. A. M. A., March 29, p. 1066.)

MEDICINE AND SURGERY

BLOOD PRESSURE IN EARLY LIFE

During recent years, no medical diagnostic procedure has received such thorough and systematic investigation as has been accorded to the blood pressure and its variations under different conditions and in different persons. This is due partly to the fact that estimation of the blood pressure is not, as a rule, a difficult procedure, and partly also

to the fact that material for such studies is always available. The exact facts have not, however, been assembled and sufficiently established, even for the normal, let alone for a vast number of pathologic conditions. It is well, therefore, to have available the results of a statistical study of blood pressure in early life, such as that made in the department of applied statistics in the University of London (Stocks, Percy; and Karn, M. N.: Blood Pressure in Early Life, London, Cambridge University Press, 1924). The plan of the investigators in included a study of the behavior of blood pressure during puberty and adolescence, ascertaining the normal range of systolic, diastolic and pulse pressures at the ages from 5 to 40, and examining the interrelation between these pressures, and their correlation with the various activities of life. Measurements were carried out on 1,633 persons, including 1,323 boys from various schools, forty-two workmen, and 154 male and 114 female college students. As in all medical investigations, it was first necessary to establish a standardized technic. The investigators were promptly convinced of the great superiority of the ausculatory over the palpatory method of determining systolic pressure. The studies included, as well, a survey of the literature on the various points to which special attention was given. The standard technic finally adopted was, briefly, as follows:

Subject in sitting posture, with left arm resting relaxed on table in front, palm upward; use of sphygmomanometer with standard 12 centimeter armlet applied round left arm above elbow, end of stethoscope being applied by elastic band (not too tightly) to bend of elbow. Readings to be taken as pressure is released; systolic pressure at first and diastolic at fourth point (or "fifth" when fourth is not distinguishable). Where possible, morning readings are advocated.

The investigators found that the changes which occur in pressure and pulse rate on rising from a sitting to a standing posture vary widely in different persons, the average being a rise of 3 mm. in the systolic and 10 mm. in the diastolic pressure, and a rise of 7.5 beats a minute in the pulse rate, with a fall of 7 mm. in the pulse pressure. In females there is, in general, no rise in the systolic pressure, and a rise in the diastolic average of only 5 mm. It did not seem possible to interpret these reactions in any way as an index of the individual's physical fitness. A study of the changing curves of blood pressure with increasing age indicates that, up to 11 years, the mean systolic pressure rises uniformly with age; during adolescence, the gradient is temporarily increased and the pressure reaches a uniform adult level at about 18 years of age, with no further tendency to rise up to the age of 35 or 40. The diastolic pressure rises more or less uniformly until adolescence, and then more slowly to the age of 17, when it rises rapidly to its maximum about the age of 20. The pulse pressure therefore rises uniformly to 15; during adolescence, rises rapidly to 16 or 18 years of age; rapidly falls to its original level about 20, and then slowly increases up to 40. This is taken as an indication of the fact that the heart is performing more work per

unit weight of cardiac muscle during adolescence than at any preceding or subsequent period of life up to the age of 40.

It was found that regular physical exercise tends to keep the diastolic pressure at a lower level by reducing peripheral resistance, thereby rendering the heart more efficient. The psychologic effect on blood pressure is indicated by the fact that average pressures were noticeably higher in schools in which discipline was maintained than in those institutions in which the discipline was more easy-going.

Among other by-products of this systematic study was a determination of the relationship of previous infections to changes in blood pressure. The accounts of previous infection with scarlet fever, diphtheria, measles, whooping cough and chickenpox were obtained in the case of 350 boys. As a result, the British statisticians write that it cannot be said that there is any conclusive evidence from these figures of any permanent effect of the exanthems on the systolic pressure in after life.

There still remain many factors related to the blood pressure that require accurate determination. Studies of racial influences and climatic conditions indicate that these may have a bearing in establishing normal figures for certain groups. If a standard technic, subject only to the error of individual determinations, can be generally accepted, the near future may show this diagnostic procedure to have a greater value than is now accorded it. — Jour. A. M. A., June 28, 1924.

THE PRINCIPLES INVOLVED IN THE TREATMENT OF OBESITY

The treatment of ordinary obesity of moderate degree, the type which is best exemplified by that increase in weight which comes with the ease and contentment of middle age is the type of case discussed by James S. McLester, Birmingham, Ala. (Journal A. M. A., June 28, 1924). He says that the obese person exercises too little, eats too much, or both. To cure him, the endeavor should be to balance the two main factors — metabolic activity and food intake—by stimulating the one and curtailing the other. Exercise hastens materially the metabolic rate and leads to the increased oxidation of ingested food, or, if food is not available, then of body fat. The exercise should be of the right sort and should never be carried to the point of exhaustion. It should be mild and long continued rather than violent. It should be regular, not spasmodic, and if possible the patient should find in it interest and diversion. The other useful physical stimulus is the cold bath. A cold shower or plunge greatly increases the metabolic rate, which increase persists for a long time afterward. It has been said that patients who are more than 45 years of age do not stand this well; but if the heart is intact, the arteries not too sclerotic, and the blood pressure not too high, the cold bath probably does less harm than continued obesity. The curtailment of food must be accomplished along rational lines, with due regard for known metabolic laws. The total caloric intake should be relatively small, the exact figure depending on the weight desired and the rapidity of its con-

templated attainment. The patient should be permitted an amount of food that will yield from 18 to 22 calories per kilogram. Preservation of nitrogen equilibrium is of paramount importance. The object should be to force the patient to burn his own fat, and this without loss of body protein. Therefore, the first dietary principle of the reduction cure should be to prescribe a menu which in caloric value is materially below the patient's needs, and yet which has a protein content abundantly equal to these needs. From 1.5 to 2 gm. of protein per kilogram of calculated ideal body weight can be regarded in the reduction cure as an appropriate amount. In order to throw the smallest burden on the kidney and to preserve nitrogen balance in the most economical manner, the patient should choose proteins of high biologic value. These are proteins which supply to the organism in full measure all the amino-acids necessary to the building of the animal's own tissues. Chief among them are the proteins of meat, eggs and milk. After computing the caloric value of the protein allowance, there should be added to the diet an amount of carbohydrate sufficient to bring its value almost or fully up to the desired total caloric intake. The precaution should be taken to see that this carbohydrate portion of the diet includes sufficient of the vitamin-carrying foods, such as fruits, tomatoes and the leafy portion of green vegetables. Fat is not a necessary part of the diet for the obese person. Fat is the one foodstuff that can be reduced to a minimum, or better still, omitted altogether. Obesity is not increased by the excessive drinking of water, and is not relieved by abstention from water. The excessive drinking of water often induces the patient to eat more food. If this error is guarded against, an abundance of water should be advised. Other things being equal, the patient should be allowed to eat the food which in largest measure allays his hunger and which gives him the greatest degree of satisfaction. Therefore, the protein the patient receives should be largely in the form of meat. Since hard boiled eggs have a higher satiety value than soft boiled eggs, although the two are obviously of equal caloric value, the former should be preferred. Likewise, potatoes are preferable to bread, because in isodynamic quantities the former have a higher satiety value. In this connection is seen the importance of sweets. Not only are simple sweets, when credited with their proper caloric value, of no harm, but when taken at the proper time they will permit the patient to rest satisfied with a smaller quantity of food. Short fasts are sometimes advisable. McLester warns against rapid reduction in weight.

VISUAL DISTURBANCES PRODUCED BY TRYPARSAMIDE

To study the characteristics of visual impairment caused by tryparsamide, Alan C. Woods and Joseph Earle Moore, Baltimore (Journal A. M. A., June 28, 1924), have reviewed a series of 2,417 patients who received more than 3,000 intravenous injections of tryparsamide in courses of from eight to sixteen doses, the interval between doses being not less than one week. No other drug is used during the

administration of tryparsamide, though mercury or arsphenamin is employed as interim treatment between the courses. The dose is usually between 30 and 50 mg. per kilogram (average adult dose, 3 gm.). The gross incidence of untoward ocular symptoms in this series of 241 cases is 17.8 per cent. Twenty-four cases, or 10.2 per cent, fall in the subjective group; thirteen, or 5.5 per cent, in the group with objective ocular damage; and in five, or 2.1 per cent, the influence of tryparsamide is unquestionable. The questionable group includes three patients with some subjective complaints, in whom the mental condition was such as to make objective examination impossible, and two patients in whom incipient optic atrophy was accidentally discovered after a long series of tryparsamide injections. It was impossible to determine whether this optic atrophy was due to neurosyphilis or to tryparsamide therapy. In the subsequent discussion, this small questionable group will be disregarded. The subjective type of reaction strongly suggests hyperesthesia of the retina as the underlying cause. From six to twenty-four hours after the injection of tryparsamide, a "dazzling" sensation appears, at times associated with a "tremor in the air." From the ophthalmologic standpoint, there is no change in the eyes and no diminution of vision. In the type of reaction classed as objective, the same symptoms of dazzling vision are present. These symptoms are usually but not necessarily more intense than in the subjective group, and are accompanied by other changes which indicate definite organic damage to the eyes. The symptoms appear, as in the subjective group, about fifteen hours after the treatment with tryparsamide, and are usually accompanied by a slight dimness or veiling of vision. In this more intense type of reaction, patients constantly stated that objects in a dim illumination appeared gray. Vision frequently shows a slight but definite diminution. The visual fields show a noteworthy alteration, consisting of concentric contraction of the form fields, affecting particularly the nasal, upper and lower fields, the temporal field being involved last or not at all. The color fields remain unaffected. In a few of the more severe cases, visual failure and field contraction slowly increased to a maximum within three weeks, in every instance except one, however, stopping well short of blindness. In patients with reactions of the subjective type only, it is usually possible to administer more tryparsamide without further difficulty. If objective evidence of visual damage is present, the drug should be permanently withheld. Disease of the central nervous system, especially general paralytic and tabetic neurosyphilis, is to some extent a predisposing factor to visual disturbance from tryparsamide. Pre-existing syphilitic disease of the optic nerve or retina is not necessarily a contraindication to the use of tryparsamide. It is probable that the drug exercises, in some instances, a direct toxic action on the retina or the optic nerve. Before beginning tryparsamide therapy, every patient should be examined by a competent ophthalmologist as to the visual acuity, fundi and visual fields. The occurrence of any visual disturbance must form the occasion

for a second examination. In the present status of our knowledge of the drug, its use should be strictly limited to the treatment of trypanosomiasis and of neurosyphilis.

STUDIES ON THE METABOLISM OF OBESITY

Observations made by Solomon Strouse, Chi Che Wang, Chicago, and Marie Dye, East Lansing, Mich. (Journal A. M. A., June 28, 1924), have shown that (1) obesity in certain persons may occur on food intakes much below their calculated caloric requirements;; (2) the basal metabolism in obesity does not differ from the normal; (3) the specific dynamic action of protein is decidedly less marked in the obese than in the normal, and (4) there probably exists an anomally of fat metabolism in the obese, the exact nature of which has not been ascertained.

STOMATITIS FOLLOWING THE INJECTION OF MERCURO-CHROME-220 SOLUBLLE IN A TUBERCULOUS SINUS

In a case cited by Chester C. Guy, Chicago (Journal A. M. A., June 28, 1924), discharging sinuses in the region of the greater trochanter communicated, through the acetabulum, with an abscess cavity in the pelvis on the inner surface of the ilium. March 22, 15 c.c. of a 1 per cent solution of mercurochrome-220 soluble was injected into the sinuses after irrigation with physiologic sodium chlorid solution. This was repeated daily, and a marked decrease in the amount of the discharge was noted. Improvement continued until April 10, when the patient began to complain of soreness in the gums, profuse salivation, loosening of the teeth, and diarrhea. These symptoms increased rapidly in severity, and the next day the injections were stopped. Two weeks later, the stomatitis and diarrhea had entirely disappeared, and they have not recurred since.

THE USE OF SULPHARSPHENAMIN IN VINCENT'S ANGINA AND STOMATITIS IN CHILDREN

Fifteen cases of Vincent's angina are reported on by Louis H. Barenberg, New York, and Max W. Bloomberg, Montreal (Journal A. M. A., July 5, 1924). Eight were treated by intramuscular injections alone, and seven by intramuscular injection, combined with local application of sulpharsphenamin three times daily. The dose was 0.1 or 0.2 gm.; five received one injection of 0.1 gm., two children received two injections of 0.1 gm., and only one required two injections of 0.2 gm. Five had one intramuscular injection as well as local applications for three days. No patient required a second injection. Two patients, the first treated, had local applications of neo-arsphenamin for eight days, followed by one injection of sulpharsphenamin (0.1 gm.). They healed within two days after this injection. The average duration of disease in those patients who simply were injected was six and one-half days; of those on combined treatment, in whom 0.2 gm. of sulpharsphenamin was given, about four days. In one case, the patient had a marked peritonsillitis; there

appeared to be an abscess, and incision was advised. Since the child was able to take nourishment, it was decided to defer operation. The inflammation disappeared within two days of an injection of 0.1 gm. of sulpharsphenamin. Twenty-seven cases of stomatitis likewise were treated. Of these, nineteen were typical cases of ulceromembranous gingivitis. Some of these were treated simply by intramuscular injections; in others, this method of therapy was combined with local applications of sulpharsphenamin. The former group took about one week to heal, and in the latter, in which local applications reinforced systemic treatment, the gums resumed a normal appearance in about five days. In some instances, pyorrhea alveolaris also responded to these measures.

INTERMITTENT FEVER OF SEVEN MONTH'S DURATION DUE TO MENINGOCOCCEMIA

Sixty-eight reported cases of meningococcemia are analyzed by William Dock, Boston (Journal A. M. A., July 5, 1924), and one new case is cited. The important points brought out are: A fever of unknown origin, lasting seven months and ending abruptly in meningitis, was due to meningococcus sepsis, not localized on the heart valves. The intermittent fever, almost quartan but slightly irregular, the recurrent rash, headache and joint pains, together with the relatively healthy appearance of the patient, form a characteristic disease picture. Negative routine blood cultures on ordinary mediums are of no value in excluding this type of infection for with ascitic broth, carefully inoculated, the organisms may be obtained repeatedly. The organisms may be inagglutinable when first isolated; later they may be agglutinated as strongly by antigonococcus as by antimeningococcus serum if incubated over twelve hours, though the immediate reactions are specific. Such infections should be treated intensively with polyvalent antimeningococcus serum, and the inabality to identify or agglutinate the organisms from the blood, or the supposed infection of the heart valves, are not valid reasons for withholding specific treatment.

EFFECT OF TONSILLECTOMY ON THE GENERAL HEALTH OF TWELVE HUNDRED CHILDREN

The operation for the removal of tonsils and adenoids has become such a common one that it is no longer restricted to cases in which the tonsils are obviously diseased. A so-called prophylactic tonsillectomy is now generally performed, so that the indications for the removal of these organs need not be very definite. The real value of the operation can be determined only by repeated examinations of the children before operation and at stated intervals after the operation. Such a study has been made by Albert D. Kaiser, Rochester, N. Y. (Journal A. M. A., July 5, 1924), to show what the operation has done for 1,200 children contrasted with an equal number who were not operated on. An analysis of the complaints in the group operated on shows that by far the most com-

mon one was mouth breathing. Ten hundred and fifty-seven out of the 1,200 were mouth breathers. This complaint was relieved in 88.5 per cent. of the children. Fifty-four of these children showed incomplete removal of the adenoid tissue, which may account for the failure to get relief in some of these children. A history of frequent sore throat occurred in 674 children studied before operation. Ten per cent. of those complaining of symptoms failed to get relief from the operation. One year after operation, only 5 per cent. complained of frequent sore throat. During the last two years, however, frequent sore throats returned to 5 per cent. additional of the children operated on. Frequent head colds were complained of by nearly half the children in this group previous to operation. During the last three years, 146, or 27 per cent., were still subject to frequent head cold, and forty-one were having this infection for the first time since operation. Chronic hoarseness existed in fifty-four of the children before operation, and in fifty-seven three years later; of this number, four children showed this symptom for the first time after tonsillectomy. The relationship that exists between enlarged cervical glands and diseased tonsils has not been definitely established. It seems fair to conclude from these cases that considerable time must elapse after tonsillectomy before any great change takes place in the glands. At the time of the operation, 30 per cent, of the children were termed underweight. At the time of examination, three years after operation, 12.5 per cent. of the children were 7 per cent, or more underweight, which represents a very definite improvement in the nutritional status of these children. Discharging ears, either acute or chronic, had existed in 136 out of the 1,200 children operated on before the time of operation. During the three years subsequent to the operation, forty-two children had a similar complaint. Of this number, twenty-six had discharging ears for the first time after their tonsillectomy. At the time of operation, it was learned that sixty-nine children gave a history of repeated attacks of bronchitis. The incidence of this infection during the three years following operation was twenty-four cases, of which eighteen of the patients had their repeated attacks since the operation and had never had any before. It would seem that subsequent to the operation, the incidence of most infections had been lessened during the three-year period. A comparison of this group with the control group shows that tonsillectomy offers a child considerable relief from such common complaints as sore throat, head colds and mouth breathing. It lessens the chances of having discharging ears and their complications. It assures some protection against glandular infection, but is no guarantee against it, and does not assure the immediate disappearance of large cervical glands. It does not influence favorably or unfavorably infections of the larynx, bronchi and lungs, as they occur equally in the two groups. It does not prevent scarlet fever or measles, but may influence the severity of the infections. It seems to lessen the incidence of diphtheria by removing fertile soil for the diphtheria bacil-

lus. It has not influenced the incidence of chorea or rheumatism. It has shown a lessened incidence of heart disease over a period of three years. It has definitely reduced malnutrition in the group operated on as compared to the group not operated on.

THIOSINAMIN IN THE TREATMENT OF ARSPHENAMIN DERMATITIS

One of the commonest untoward reactions following arsphenamin therapy is dermatitis. Sigmund S. Greenbaum, Philadelphia (Journal A. M. A., July 5, 1924), has used thiosinamin to good advantage in the treatment of these cases. The drug is put up in ampules containing 3 grains of the drug dissolved in 6 c.c. of distilled water, to which is added 1 or 2 drops of a 2 per cent solution of glycerin, which insures permanent dissolution. The ampules are sterilized in the autoclave. The drug is injected intravenously, every day, for as many days as is necessary to control the dermatitis. Seven cases are cited.

A NEW AND EARLY SIGN OF RUPTURED BLADDER

Roger T. Vaughan and Dorrin F. Rudnick, Chicago (Journal A. M. A., July 5, 1924), inject air into the urinary bladder which allows a positive early diagnosis of vesical rupture by the roentgen ray, and therefore should diminish mortality substantially. The method differentiates between intraperitoneal and extraperitoneal rupture, allowing the surgeon to avoid opening the peritoneal cavity in extraperitoneal ruptures, in which it is best for the peritoneum to remain intact. Thus far the authors have no reason to believe that this procedure carries any added risk to the patient either from air embolism or from infection, if used with ordinary asepsis and clinical judgment. It adds no discomfort to the patient. Four cases are reported.

ORTHOPEDIC PREVENTIVE MEDICINE

The prevention of deformities is the subject of a paper by Henry Bascom Thomas, Chicago (Journal A. M. A., June 28, 1924). He brings to the attention of the medical profession a realization of the effective work now being done, and of the possibilities of wider cooperation within the medical profession and with the various social agencies concerned with children and with industrial conditions. Five types of cases frequently recurring in orthopedic practice, are presented to demonstrate the possibility of the effective prevention of deformity; fractures; congenital clubfoot; rachitic deformities; traumatic spastic paralysis, and epidemic poliomyelitis. In the prevention of rachitic deformities, cooperation between the pediatrician and the orthopedic surgeon should be brought about by more frequent consultations regarding the care of these children, from both the standpoint of feeding or treatment of rickets and the prevention and correction of deformities. An outstanding example of community cooperation for the prevention of deformities is afforded by the experience in Chicago in connection with the epi-

demic of poliomyelitis in 1915, when the commissioner of health used his authority to enforce the hospitalization of infantile cases. A wing of the county hospital was appropriated for this purpose, and all agencies dealing with children were enlisted in the effort to discover and report cases. In the hospital, the correct position of the paralyzed body and the limbs was strictly maintained during the acute and subacute stages of the disease; and, in the cases requiring it, the patient was dismissed with plaster supports. The necessity for follow-up care was realized, and the cooperation of a nursing organization was obtained for this purpose. A few of the nurses were especially trained for infantile treatments, which were given in the homes of the patients dismissed from the hospital, with periodic visits to a supervising orthopedic surgeon regarding further treatments. Such a plan, actually working, practically eliminated later corrective operations on this group of children, leaving only the stabilizing operations as the main work the surgeon now gets. A factor in preventive work, which, though seemingly negligible, is in reality one of the strongest obstacles encountered, is the psychology of the crippled child. The outstanding element is the fact that the crippled child, whether in poor, moderate or opulent circumstances, is almost invariably a spoiled child. The influence of the unfortunate child on its parents and relatives is such that, in a lamentably large number of cases, its unwillingness to be taken to a physician or a hospital results in failure to secure any treatment whatever. Thus, many children afflicted with various types of bone, nerve or muscle diseases, in which early treatment would prevent a lifelong crippled condition, are too often not seen by a physician at all. Others may be seen only after the actual deformity takes place. Prompt hospitalization of the patient has advantages over treatment in the home, however favorable the home conditions may be, not alone because of the superior organization of the physical environment in the institution, but because of the opportunity afforded there for correcting bad habit formation in both the child and the parent. The crippled child is unfitted for normal life in two ways: from the standpoint of physical disability and in respect to his psychologic attitudes. It is in this connection that the hospital or the special school is of peculiar value to the child. From a social standpoint, the child's new attitude and behavior are fully as valuable as the correction of the physical deformity, especially as the reform is in most cases a lasting one, the beneficial effects of which continue to be shown in home and school life after the child's release from the hospital.

EXPLOITING THE CANCER SUFFERER

The week of the annual session of the American Medical Association was chosen as a propitious time to resurrect two discredited "cancer cures." At the beginning of the week, a Philadelphia paper announced that the cause of cancer had been discovered and that a treatment for the disease had been evolved that was producing remarkable results. This particular piece

of publicity dealt with the alleged cancer serum of Dr. T. J. Glover of Toronto. Glover's "serum" and its method of commercial exploitation were the subject of two or three articles that appeared in The Journal in the early part of 1921. It was there shown that a special committee appointed by the council of the Academy of Medicine of Toronto had investigated the Glover serum and reported that it was unable to find any evidence to show that the serum had produced a cure in any case definitely established as cancer. About the same time, Dr. Francis Carter Wood, director of cancer research at Columbia University, reported that he had subjected the Glover serum to tests and had found not the slightest evidence that the product had any effect on the growth rate of tumors, nor had it cured any tumor. The second "cancer cure" to be exploited last week was that of Dr. William F. Koch of Detroit. Koch's nostrum was brought to the attention of the newspapers of the country by one C. Everett Field in a statement made before the "American Association for the Study and Cure of Cancer," a newly formed organization that must not be confused with the well established American Society for the Control of Cancer. Koch's cancer "cure" was dealt with in two articles that appeared in The Journal during February, 1921. It was there brought out that Dr. Koch announced his alleged "cure" less than a year after he was graduated in medicine. The committee appointed by the local medical society at that time made two reports, both unfavorable to the "cure." Since the committee reported, the Koch "cure" has been exploited by a "sanitarium" of which Koch is the "medical director." The "sanitarium" sends out to the public a typical "cancer cure" advertising booklet; statements derogatory to the treatment of cancer by surgery, radium and roentgen rays; quotations (at least one of which is fictitious) from alleged authorities to support Koch's thesis; a statement of Koch's theory regarding cancer and some noninformative statements about the remedy; finally, the usual farrago of alleged case reports. The publicity just given to these two discredited "cures" is producing the usual effect. Sufferers from cancer both directly and through their physicians are frantically trying to learn whether there is any warrant for the claims so carelessly broadcast. There may be things more heartless than that of exploiting the sufferers from so dreaded a disease as cancer, but at this time we do not think of them. The most pernicious feature connected with such exploitation is that of awakening of false hopes in the minds of the sufferers. The mental anguish thus caused is just as great whether the "cure" is fraudulent in both its inception and its exploitation, or put forward by honest but misguided enthusiasts. So far as the "cures" of William F. Koch and T. J. Glover are concerned, it cannot be too earnestly asserted that neither one is in any sense established as either scientific or reliable.—Jour. A. M. A., June 21, 1924.

U. S. SUPREME COURT ON MEDICAL USE OF MALT LIQUORS

The constitutional principles underlying the regulation of the prescribing and dispensing of alcoholic

liquors for medicinal purposes have been succinctly stated by the United States Supreme Court in two recent cases (Everard's Breweries v. Prohibition Director; Edward & John Burke, Ltd. v. Commissioner of Internal Revenue; decided, June 9, 1924). Certain makers of malt beverages—beer, etc.—brought suit to enjoin the Commissioner of Internal Revenue and other federal officers from enforcing the provisions of the amended National Prohibition Act, prohibiting the prescribing of beer for medicinal purposes. The suit was based on the grounds that the Eighteenth Amendment authorizes Congress to prohibit traffic in only such intoxicating liquor as is intended for beverage purposes, and that the control of liquor for medicinal purposes is reserved to the several states; that while Congress can regulate the sale of medicinal liquor, it cannot prohibit medicinal liquor; that the prohibition of beer for medicinal purposes is neither an appropriate nor a reasonable exercise of the power conferred on Congress by the Eighteenth Amendment, but infringes on the legislative powers of the states. The Supreme Court, however, denied all these claims and affirmed the decree of the court below, dismissing the suits.

The Supreme Court points out, in its decision, that the Constitution confers on Congress the power to make all laws necessary and proper for carrying into effect all powers specifically vested in it. Such implied power, the court says, is not limited to measures indispensably necessary, but Congress may adopt such means as it believes best adapted to the ends to be accomplished. The court points out that the sale of beer for medicinal purposes may permit clandestine traffic and thus hamper and obstruct the enforcement of prohibition. Furthermore, it is emphasized that the hearings before the enactment of the law did not show that beer possesses medicinal properties. If Congress can prohibit the manufacture and sale of beer for medicinal purposes, it may presumably prohibit the sale of wines and whisky as well, and limit the sick to pure alcohol as a remedial agent. In view of the extent to which the court concedes discretion with respect to these matters to Congress, it seems at least questionable whether the sick who are in need of alcoholic liquors in excess of the amounts now allowed by law can expect relief from the courts; if relief is to be obtained, it will probably have to come directly from Congress. It will be well, therefore, for physicians to begin at once to look toward the introduction of reasonableness of the National Prohibition Act, so far as it relates to the medicinal use of beer and other liquors. It was the opinion of the House of Delegates at the session just concluded that the medical profession should direct its efforts toward this end.—Jour. A. M. A., June 21, 1924.

THE PRESIDENT-ELECT

When the American Medical Association met in San Francisco in 1923, the House of Delegates indicated by a remarkably close vote its choice between Dr. William A. Pusey and Dr. William D. Haggard for the presidency of the Associa-

tion. At the meeting held in Chicago this year, Dr. William D. Haggard was elected to the presidency for 1925 with a large majority. The President-Elect was born in Nashville, Tenn., Sept. 28, 1872, the son of Dr. William David Haggard and Jane Douglas. He received his medical degree from the University of Tennessee in 1893, and has practiced in Nashville since that time. Dr. Haggard is professor of surgery in the Vanderbilt University, Nashville, one of the practicing surgeons in the Vanderbilt Hospital, and first president of the staff of St. Thomas Hospital. He was instrumental in organizing the American College of Surgeons, and served that organization for a number of years as regent. He was formerly president of the Tennessee State Medical Society, secretary of the Southern Surgical Association, and its president in 1917. It is interesting to know that his father was the first president and one of the founders of the Southern Surgical Association. In the American Medical Rssociation, Dr. Haggard was chairman of the surgical section in 1917, and a member of the Council on Medical Education from 1910 to 1920. When war was declared, he was appointed by Surgeon General Gorgas on the Advisory Board in the Division of Surgery, and was on duty in the Surgeon General's Office at Washington. During the World War he served as major and lieutenant-colonel in the Medical Corps, U. S. Army, and acted as surgeon to Evacuation Hospital No. 1, at Toul, France, and later as consultant in surgery at the Mesves Hospital Center. Before going overseas, he served as medical aide to the governor in the organization and supervision of the medical advisory boards under the selective service act. His election may be considered a recognition of medicine in the South, of his service in the advancement of medical education, and of the qualities of leadership and congeniality which he possesses.—Jour. A. M. A., June 21, 1924.

THE BASIS OF ALLERGIC PHENOMENA

P. J. Hanzlik, San Francisco (Journal A. M. A., June 21, 1924), states that the anaphylactic and anaphylactoid phenomena, collectively the allergic phenomena, appear to rest on a common basis, namely, on disturbances in the physical and chemical (colloidal) mechanisms of the blood and tissues. This is indicated from the evidences taken as a whole, among which are the nearly identical symptomatic, blood and tissue changes in different species described in the literature. Exceptions to this are the period of incubation, and the hyperexcitability of isolated smooth muscle that appear to be peculiar to protein anaphylaxis, and some discrepancies in the histologic changes in the tissues; but these differences may be explained and reconciled on a physical basis. However, in view of sundry difficulties, the exact explanation of the physical-chemical disturbances is not yet at hand, though it is believed that such disturbances mediate cellular stimulation and depression, and hence alteration in physiologic functions, commonly recognized as symptoms or "reactions," etc. This gives the allergic phenomena a broad significance in biology, and therefore, in

pharmacology and therapeutics, with which they enjoy mutual relationship. The analysis of the phenomena indicates something of the nature and limitations of nonspecific, foreign protein, etc., therapy and emphasizes again the dangers of intravenous medication.

CINCHOPHEN POISONING

A case of severe cinchophen poisoning is cited by Moses Barron, Minneapolis (Journal A. M. A., June 21, 1924), which presented the characteristics of profound allergic shock. The urine showed albumin, erythrocytes, leukocytes and hyaline and granular casts following the ingestion of a single small dose of the drug. The urine contained also an abnormal amount of uric acid and urates. The hypersusceptibility to the drug occurred on two different occasions during an interval of about three months. Each attack was brought on by only two tablets. A rather striking feature is the fact that both these attacks came on after the purchase of a new bottle of medicine. Barron tried to compare these tablets with other cinchophen tablets, and could discover no difference in appearance, odor or taste. The profound cardiac depression, the severe skin manifestations and the marked nervous phenomena appeared within from five to ten minutes after their ingestion. They were taken on an empty stomach on each of the two occasions, and this may explain the rapidity of the onset of the symptoms. The generalized edema of the skin, the marked erythema, the itching and prickling sensations and the profound shock suggest that the attacks were true allergic phenomena. The patient might have sensitized himself to the drug during the previous three or four years, when on several occasions he had taken the tablets in large doses. Cinchophen is a renal irritant in many cases when administered in ordinary therapeutic doses. Neocinchophen produces renal irritation and other by-effects, but in a lesser degree than either cinchophen or the salicylates. In administering cinchophen or its derivative neocinchophen, one should keep in mind the possibility of toxic by-effects and should watch the urine especially for evidences of renal irritation.

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OBSERVATIONS IN THE STUDY OF BRAIN INJURIES

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Oration on Surgery Delivered Before the West Virginia State Medical Association, Wheeling, W. Va., May 14, 1924.

As a result of the World War, a greater interest has been stimulated in the entire subject of brain injuries of both the acute and chronic types; this paper, however, will consider only the brain injuries occurring in the civil life of peace times, with particular reference to brain injuries occurring in children and especially at the time of birth.

The diagnosis and treatment of acute brain injuries has been retarded very much by the nomenclature "fracture," when it is now known that the presence or not of a fracture of the skull is possibly the most unimportant part of the pathology of cranial injuries, both in the diagnosis and in the treatment to be afforded to the patient. (Naturally, all depressed fractures of the vault should be elevated or removed for fear of future complications of cortical irritability, etc., and these depressed fractures will not be considered in this paper.) On the other hand, the most important pathology to be considered in brain injuries is the presence or not of an increased intracranial pressure, whether due to hemorrhage or to cerebral edema. If hemorrhage is present and of not sufficient amount to cover the convolutions themselves, then this fluid blood is found in the sulci about the supracortical veins. It is this blood which, if not absorbed or satisfactorily drained, permits an organization residue to form and then an obstruction of varying degree to the future absorption of the cerebro-spinal fluid results. In the diagnosis of these conditions, the routine neurological examinations

are aided by careful optholmoscopic findings of the fundi and by the accurate estimation of the intracranial pressure by the method of lumbar puncture and registered by the spinal mercurial manometer. But no patient should be subjected to prolonged examinations and tests if that patient is in a condition of shock, for such examinations will not aid the shock of the patient but rather prolong it and our first consideration should be the general treatment of shock when present.

1—Acute Brain Injuries in Adults

I have had the opportunity to examine a large series (over 1,000) of these acute brain injuries, and in this series the expectant palliative treatment of quiet, ice helmet, warmth, shock measures, etc., was successful in 56%, or almost two-thirds of them; this expectant treatment was frequently aided by the spinal drainage of repeated lumbar punctures and these were the patients in whom the intra-cranial pressure did not exceed twice the normal—the normal pressure being 6-8 mm. Hg., as registered by the spinal mercurial manometer. The use of concentrated solutions of magnesium sulphate to lessen the cerebral edema has not been effective in my own experience in these acute cases, but this method has proved of value in the chronic cerebral edema associated with the condition of brain tumor, etc., in which the cerebral edema is rather an intra-cellular true edema than the "wet" edematous brain so frequently associated with brain injuries. The operative treatment in this series was necessary in less than one-third (30%) of the cases and was advised in those patients having an increased intracranial pressure of over twice the normal and in whom the expectant palliative method of treatment, together with repeated lumbar punctures of spinal drainage filed to lower the pressure. The operation of choice was the subtemporal decompression and cranial drainage. Those patients entering the hospital in a moribund condition and dying within six hours after admission from shock, medullary edema (decompensation), other internal injuries, etc., and for whom no operative treatment was naturally advised, numbered almost one-seventh, 14%, in this series. The total mortality was 33% and if we subtract the 14% of moribund cases, the mortality is 19%. The operative mortality was 39% and naturally these patients operated upon were the more seriously injured, not only from the standpoint of recovery of life, but from the standpoint of future normality. The operative treatment depended upon a marked increase of the intracranial pressure of more than twice the normal, whether this increased pressure was due to hemorrhage or to cerebral edema, and these two factors form the most common and important pathology in brain injuries—it being rare (in only 6% of the cases) for a gross primary lesion of the brain, such as laceration and subcortical hemorrhage, to occur.

In the operative treatment of brain injuries, there are two periods in which no operation should be performed and it has been the neglect of this fundamental consideration that the operative treatment of selected cases of brain injuries had become almost discredited until

within the past few years. The first period in which no operation should be performed is during the initial stage of shock, when the temperature is subnormal and the pulse rate and respiration are above 120 and 34 respectively, and the blood pressure below 100. To advise a cranial operation or even extensive prolonged examinations and tests upon these patients in the condition of severe shock merely lessens the chances of recovery, and if the patient does survive then he recovers in spite of the additional shock of the examinations and of the operation. The second period during which no operation should be performed may be called the terminal one of medullary edema (decompensation), characterized clinically by rapidly increasing pulse and respiration rates and rising temperature, but by a falling blood pressure. The patient may have been "doing nicely" for a period of several days and then change rapidly so that the picture approximates the clinical syndrome as described above. Then, since a fatal outcome is feared, it is often "thought advisable to give the patient a chance"—but these patients all die having the condition of medullary edema, whether operated upon or not—the operation merely hastening the exitus. However, in the treatment of patients having brain injuries, their intracranial status can be most accurately estimated by repeated lumbar punctures and opthalmoscopic examinations and in this manner the clinical signs of medullary compression, such as retarded pulse and respiration rates and possibly an increasing blood pressure, can usually be anticipated and thus a dangerous condition of medullary edema be prevented by the rational treatment of early subtemporal decompression and cranial drainage in that small percentage of selected cases having a high intracranial pressure (less than one-third of all cases). The use of repeated punctures of the cisterna magna for the drainage of subtentorial hemorrhage with marked signs of medullary compression may be of great value in selected cases.

II—Chronic Brain Injuries in Adults

It has become quite a common expression among the laity, that "once a person has had a fracture of the skull then that person is never the same again," and to a large extent this impression is a correct one—at least, it was so during the period of ten years ago, when the attitude of the medical profession was concerned merely with the recovery of life of the patient rather than the return of complete functional normality. In the absence of gross cerebral lesions of the brain as a cause of death in a large series of consecutive autopsies on patients in Bellevue Hospital dying from cranial injuries during the four year period of 1912 to 1916 and the demonstration in these cases that the usual findings were "wet" edematous brains associated or not with varying degrees of hemorrhage, along the sulci about the supracortical veins. It was most interesting to study the clinical records of four of the large hospitals in New York City of their patients having had cranial injuries during the decade of 1900 to 1910, this study was made in the year 1912. The total mortality ranged from 46 to 64%—the operative mortality

was as high as 87%! This excessively high rate was due chiefly to the operation being performed during the two periods when no operation should be even considered. Only 34% of the patients discharged as well, "cured" and "improved" were located, but of these patients, 67% of them were not well and were still suffering as the result of the cranial injury—the chief complaints and signs being headache, dizziness, early fatigue, change of personality to the depressed or to the irritable type, and in a small percentage of them convulsive seizures. It was rather surprising to find in a large percentage of these patients evidences of an increased intracranial pressure, as disclosed both by the ophthalmoscope and by the lumbar puncture, and thus indicating the chronic condition of "wet" edematous brain. At operation, even at this late date after the injury or at autopsy, there was disclosed an edematous "wet" brain under varying degrees of increased pressure and along the supracortical veins in the sulci was exposed a cloudy whitish new-tissue formation—the organization residue of a former layer of supracortical hemorrhage, which could not be absorbed through the normal channels of excretion—the stomata of exit in the walls of the supracortical veins through which almost 80% of the cerebrospinal fluid is normally excreted. In the acute cases when a supracortical hemorrhage is present, it forms a layer of varying thickness over the cortex in the extreme cases, but if the amount of hemorrhage is of less degree and not sufficient to cover the convolutions themselves, then it naturally collects in the depressed grooves of the sulci and about the supracortical veins as is frequently exposed at operation or at autopsy. If this blood can be entirely absorbed together with the cerebrospinal fluid through the walls of the supracortical veins, then no residue organization forms. However if the amount of hemorrhage is more than can be absorbed by this main channel of excretion, then there remains a varying amount of blood in the sulci which eventually, within a period of days, clots and finally organizes to become new tissue of fibrous character and presents the appearance of cloudy whitish new tissue formation as exposed later at operation or at autopsy. It is this organization residue which causes a partial blockage in the normal absorption of the cerebrospinal fluid and thus the resulting "wet" edematous brain under varying degrees of increased intracranial pressure—the organic basis for many of the symptoms and signs occurring in patients having had a cranial injury—headache, dizzy spells, early fatigue, change of personality and even convulsive seizures themselves—all of these signs and symptoms being due more to the factor of an existing intracranial pressure rather than to a gross cerebral lesion, such as lacerations, cortical hemorrhage, etc.

Post Traumatic Neurosis: In this connection of chronic brain injuries, the condition of post-traumatic neurosis is one that must always be considered—a functional condition to be differentiated from an organic one. In post-traumatic neuroses, the emotional factor of fear and shock at the time of injury is to be remembered together with the constitutional makeup of the patient—

whether neuro and psychopathic or not, and also, in a large percentage of these cases, the factor and hope of damages to be obtained. This latter complication is frequently an all absorbing one, and if a legal suit is pending then it is not possible to improve the condition of these functional cases by any known method of treatment; after the suit is settled, and especially if settled satisfactorily to the patient, then these are the patients having functional conditions which improve very rapidly and usually within months or one year following the injury. However, no such patient should be considered as having a functional condition or neurosis without most careful neurological examinations having been made and in each case competent ophthalmoscopic examinations and a lumbar puncture with an estimation of the pressure of the cerebrospinal fluid as registered by the spinal mercurial manometer, so that it is definitely ascertained that there is present no increase in the pressure of the cerebrospinal fluid. Otherwise, the patient having an increased intracranial pressure of chronic cerebral edema, and thus an organic basis for the symptoms and signs, may be incorrectly diagnosed, for these patients having organic lesions do not "clear up" and improve following a mere satisfactory settlement of the legal suit. These organic cases are now being frequently overlooked and neglected under the classification of post-traumatic neuroses.

Brain Injuries in Children Under Twelve Years of Age

1. Acute: The diagnosis and treatment of acute brain injuries in children are the same as in adults, except that the operative method of treatment to lower a marked increase of the intracranial pressure due to hemorrhage or to cerebral edema is much less frequent owing to the fact that acute cerebral edema following cranial injuries in children occurs comparatively rarely. Apparently the intracranial vascular mechanism of the child adjusts itself much more rapidly and easily to the effects of cranial trauma, so that an increased amount of cerebrospinal fluid is either not secreted or if secreted in large amounts, then the excess is absorbed without difficulty so that the condition of acute cerebral edema only occurs in the extreme cases. For this reason, the operative treatment of acute brain injuries in children has only been necessary in 16% of the patients, whereas in adults, the operative treatment was advisable in 30%. It may be stated also that children will stand the effects of brain injuries much better than adults and I believe that this is also due to the less frequent occurrence of extensive cerebral edema in them.

II. Chronic Brain Injuries in Children. An observation worthy of interest is the fact that the younger the child at the time of the acute brain injury and in those associated with an intracranial hemorrhage as indicated by the lumbar puncture having revealed bloody cerebrospinal fluid, the greater is the similarity of the chronic condition to the chronic condition of cerebral spastic paralysis following an intracranial hemorrhage at the time of birth with an increased intracranial pressure; that is, the symptoms and signs, especially the pres-

ence of spasticity in varying type and degree and the associated mental retardation of varying degree, are most similar in those patients the younger the age at which the intracranial lesion occurs. These are the ones having a definite increase of the intracranial pressure as disclosed by the ophthalmoscope and the lumbar puncture, and at operation or autopsy, no gross lesion or laceration of brain substance is exposed, but rather "wet" edematous brains under varying degrees of increased pressure and along the supracortical veins in the sulci is revealed a whitish cloudy new-tissue formation—the organization-residue of a former layer of supracortical hemorrhage and thus the pathological obstruction to the normal absorption of the cerebrospinal fluid through the walls of the supracortical veins. This pathology has been proven to be the same as that disclosed in the chronic brain injuries of adults in these selected cases having an increased intracranial pressure (chronic cerebral edema). In the younger patients and especially in those having had cranial injuries under the age of three years, the physical and mental impairments and retardation are undoubtedly due to the increased intracranial pressure having occurred before the pyramidal tracts and higher cortical centers had fully developed. Thus this prolonged increase of the intracranial pressure produces a clinical feature of cerebral spastic paralysis with mental retardation just as occurs following an intracranial hemorrhage at the time of birth and of such an amount that it cannot be entirely absorbed by the natural means of absorption.

Treatment: The use of thyroid and thymus therapy to lower the increased intracranial pressure of chronic cerebral edema by lessening the amount of cerebrospinal fluid secreted has been successful in only a small percentage of these patients (8%), so that the operative treatment of subtemporal decompression and cranial drainage in these chronic cases, just as in such cases in adults, was advised as the only means known of lowering the increased intracranial pressure. A marked improvement has resulted in the majority of these patients as shown by a lessening of spasticity, definite mental improvement and a diminution of the cortical irritability, but none of these chronic cases can be considered cured to the degree that they are as normal and can develop as normal individuals as if the intracranial hemorrhage had not occurred. This is true of all cases of chronic brain injuries, whether occurring at birth or later in life, and it strongly impresses one with the advisability of treating these conditions at the time of the acute lesion, when the blood is in fluid form, so that if the natural means of absorption are not sufficient to take care of all of the free blood, then repeated lumbar punctures for spinal drainage are to be urged and if this method of drainage is not sufficient, then the subtemporal decompression of cranial drainage should be instituted early, in the hope that no organization-residue or hemorrhagic clot will remain to produce future complications, either physical or mental.

Brain Injuries Occurring at the Time of Birth

1. Chronic Brain Injuries Resulting from an Intracranial Hemorrhage at the Time of Birth. It is most interesting to note in the literature that Mr. Little of London, in 1843, in his first monograph upon "The Deformities of the Human Frame," stated that in his opinion the chronic condition of cerebral spastic paralysis occurring in children resulted from a lack of development and agenesis of the cerebral cortex or from former meningitis (a destructive process) and that he had observed that apparently a small percentage of the cases were due to a difficult labor. After a period of further study and especially of post-mortem examinations of a large series of patients, it is impressive to note that in the second monograph of Mr. Little upon this subject in 1862 (19 years later), upon "The Influence of Abnormal Parturition, Difficult Labors, Etc., Upon the Mental and Physical Condition of the Child," he states that in his opinion 75% of these cases of cerebral spastic paralysis result from an intracranial hemorrhage at the time of birth. Yet it is most surprising to realize that in the literature upon this subject since this date and until within the last ten years, this second monograph of Mr. Little has been practically overlooked and that the chronic condition of cerebral spastic paralysis has been considered as the so-called Little's disease and due to a lack of development of cerebral tissues or to a destructive meningitic process, and not to the usual cause—an intracranial hemorrhage at the time of birth. Mr. Little, however, and also subsequent observers, did consider that the intracranial hemorrhage at the time of birth produced a primary gross lesion of cerebral tissue itself and therefore an irreparable damage to the brain so that when the diagnosis of Little's disease was made, that diagnosis indicated and presupposed a hopeless condition. In this connection, it may be stated that the lack of cerebral development was most frequently attributed to some taint in the heredity, lues and to various developmental factors — almost discouraging to parents hopeful of normal children. In 1913, I became interested in this chronic condition of cerebral spastic paralysis and in taking careful histories of a large series of patients at two of the orthopedic hospitals in New York City, and then by thorough neurological examinations including the routine ophthalmoscopic and lumbar puncture tests, it was surprising to note that in a small percentage of these patients, namely, 12%, that there was evidences of an increased intracranial pressure of chronic cerebral edema. Occasionally in a very small number of the older patients the X-ray disclosed evidences of convolutional markings of the inner table of the vault due to its atrophy resulting from the prolonged increase of the intracranial pressure.

The history of these chronic patients having the condition of cerebral spastic paralysis is rather instructive. During the past 10 years up to January, 1923, I have examined personally 5192 children and of this total number examined, 671 (12 plus %) have had an increased intracranial pressure as disclosed at lumbar puncture. The operative and post-mortem findings

have disclosed "wet" edematous brains under varying degrees of increased pressure and along the supracortical veins in the sulci was a whitish cloudy new-tissue formation, reported pathologically as being the organization-residue of a former layer of hemorrhage which had occurred most probably at the time of birth. Gross cerebral lesions of intra and subcortical hemorrhagic cysts, old cerebral lacerations, etc., were disclosed in only 6 plus %.

The histories revealed the following data: 81%, first children; 72%, males; 95%, full term babies, 90%, difficult prolonged labors; 76%, forceps used as last resort; 17%, breech deliveries; 8%, pituitrin had been used.

During the first week, the following observations had been made: 64%, more drowsy and stuporous than normally; 23%, refused to nurse; 78%, lessened normal demand for food; 39%, muscular twitchings, especially of orbital muscles and fingers; 17%, general convulsive seizures were present; 18%, an icteroid appearance was present.

Within the two weeks after birth, 61% were considered well or normal—if indeed anything abnormal had been suspected.

Within one month after birth, 82% were considered normal.

Within the first year and usually around the seventh month after birth, 79% of the children were not developing as they normally should, such as holding up the head, later beginning to sit up and at this time within the first year the development of spasticity of varying degree and type was usually observed. Later the child did not walk or learn to talk within the usual time and it was this development of a chronic condition in an apparently normal child that was most mysterious to say the least and its presence was ascribed to almost every possible cause. In this connection, I may state that the Wassermann test of the cerebrospinal fluid was positive in only one-half of one per cent (1 in 200).

Treatment

The treatment of this chronic condition of cerebral spastic paralysis depends entirely upon the presence or not of an increased intracranial pressure:

(a) Without a definite increase of the intracranial pressure and therefore the cerebral damage having already occurred, the treatment is limited to the various orthopedic measures and to the mental training. To lessen the spasticity numerous peripheral nerve operations have been devised, and recently even the severance of the paravertebral sympathetic ganglionic system.

(b) With a definite increase of the intracranial pressure: If this increased pressure is not over twice the normal (the normal being 6-8 mm. Hg), then thyroid and thymus therapy may be tried in the hope that this mild increase of the intracranial pressure can be lowered to normal by lessening the amount of the cerebrospinal fluid secreted. However, if the increased intracranial pressure is over twice the normal (above 16 mm. Hg.), then the operation of subtemporal decompression and cranial drainage may be considered in the hope that a sufficient amount of the blocked cerebrospinal fluid can be drained

in this manner and thus a lowering of the increased intracranial pressure be affected with a resulting improvement of the child's condition, both physically and mentally.

The operative and post-mortem findings in these selected chronic cases of cerebral spastic paralysis have been practically the same disclosed in the chronic cases of brain injuries in adults and also in the chronic cases of brain injuries which had occurred in young children. The original pathology is apparently the same in these cases —a supracortical layer of hemorrhage of greater amount than can be normally absorbed through the walls of the supracortical veins; its collection in the sulci about the supracortical veins and the subsequent formation of an organization-residue of the hemorrhagic clot and thus the resulting partial blockage in the normal absorption of the cerebrospinal fluid, producing "wet" edematous brains under varying degrees of increased pressure. The younger the child at the time of the development of this increased intracranial pressure and particularly therefore those cases due to an intracranial hemorrhage at the time of birth, the greater will be the physical and mental retardation and the more marked the condition of spastic paralysis. The older the patient at the time of the intracranial hemorrhage, as in adults, the less marked are the gross physical and mental impairments, but the more marked are the subjective complaints, such as headaches, dizziness, early fatigue and changes of personality and the greater are the emotional and psychic impairments.

The prognosis in the treatment of these chronic patients depends chiefly upon the age of the patient and the severity of the intracranial lesion; the younger the child at the time of the lowering of the increased intracranial pressure, the greater the improvement to be expected, but not one of these chronic patients can be expected to become normal as though the hemorrhage had never occurred, no matter what the treatment because the treatment of these chronic conditions is always a late treatment. The ideal time for the treatment of brain injuries of the newborn, just as in brain injuries of adults, is the time of the acute condition when the intracranial hemorrhage itself can be drained—in the adults after the period of initial shock has subsided and in the newborn within a period of one week.

II—Acute Brain Injuries of the New Born

Pathology: For years, the acute condition of intracranial hemorrhage of the new born has been a pathological study of post-mortem findings rather than their clinical recognition and, therefore, limited to a consideration of the gross lesions and of the extreme forms of intracranial hemorrhage of sufficient amount to cause the death of the baby. Years ago, Cruveilheir wrote that one third of the deaths of the new born babies were due to intracranial hemorrhage. After Little described his findings, in 1862, and McNutt, in 1885, confirmed this opinion of the relationship of intracranial hemorrhage of the new born and cerebral spastic paralysis, very little attention to this subject of intracranial hemor-

rhage in the new born was given in the literature until the last decade when a greater interest has been aroused. Numerous investigators of the post mortem findings, particularly Warwick, Capon and others, have stated that at least fifty per cent of the deaths in the new born are due to a gross intracranial hemorrhage resulting from a rupture of the tentorium, falx, large sinuses and of the supra-cortical tributaries of the longitudinal sinus, etc., and then the clinical observations of Sidbury, Brady, Green, et cetera, have added to the clinical picture of a condition the recognition of which, Huenekens states, is the most neglected phase of the care of the new born and yet the most important one.

During the period of 1913 to January 1, 1923, I had the opportunity of examining in consultation and treating forty-six new born babies within the first two weeks, the diagnosis being a serious intracranial lesion, most probably hemorrhage following a difficult labor, with and without the use of instruments. The acute condition of these children was considered of such grave character that early death was feared and it was hoped that possibly a cranial operative procedure might offer the child a chance of recovery of life, at least. Lumbar puncture was performed on all but two (these two having died before the tests could be performed) and free blood, under varying degrees of increased pressure, was found in the cerebral spinal fluid of 87 per cent of those patients tested during the first week after birth; during the second week, and especially later, the lumbar puncture becomes of increasingly less value as a diagnostic aid, the fluid usually coagulating within the first ten days. Repeated lumbar punctures for spinal drainage were used in four of the milder and earlier cases within the first week, with the hope that the intracranial hemorrhage could all be drained in this simple and safe manner; but in only two of them, after four and seven lumbar punctures respectively, every twelve hours, did the fluid become clear and of normal pressure. This method of spinal drainage should be attempted in all but the very extreme cases of extensive intracranial hemorrhage, under high pressure, within the first week after birth; if the cerebro-spinal fluid does not become clear or the pressure become normal and remain normal, then the cranial operation of modified sub-temporal decompression and drainage should be considered. The operative and post mortem findings in one hundred per cent of these acute extreme cases disclosed subdural, supracortical and subarachnoid hemorrhage of varying degree; if not of sufficient amount to cover the convolutions, then the free blood was found in the sulci about the supracortical veins and always associated with a high degree of cerebral edema.

During the last three years, I became more and more impressed with the fact that these acute cases of extensive intracranial hemorrhage of the new born, to the degree of producing profound unconsciousness, inability to nurse and even convulsive seizures, were almost the only ones being recognized by the obstetrician with any degree of certainty—the cases of milder degree and less extensive intracranial hemorrhage at the time of

birth not producing marked clinical signs of its presence, owing to the fact that the cerebral cortex at this early age is not highly developed—the new born child being more of a spinal than a cerebral animal. Also, the histories of chronic cases of cerebral spastic paralysis were very suggestive in that the large majority of babies were first-born full-term boys, delivered after a difficult labor, with and without the use of instruments, and in whom the clinical signs, even when observed, were often not more than a slight drowsiness, difficulty in nursing and an occasional muscular twitching, and so often ascribed to "nothing at all;" the child having suffered from a difficult labor, such a condition might be expected and then would "clear up." Fortunately, in the mild cases of small hemorrhage, frequently associated with no definite clinical signs at all, the natural means of absorption were undoubtedly often sufficient to "take care of" the hemorrhage, so that no supracortical residue of organized new tissue formation of the layer of clot remained to block the normal absorption of the cerebral spinal fluid; these patients apparently became normal and remained so. Unfortunately, in those patients with more extensive hemorrhage and in whom clinical signs during the first ten days after birth were usually noted, as indicated in this series of chronic cases—mild stupor, difficulty in nursing and an occasional muscular twitch—the condition apparently did "clear up" within the first two or three weeks, but only temporarily so, for, after a period of several months of apparent normality, these children began to exhibit, within the first and second years of age, the definite signs of physical impairment and mental retardation—the typical condition of cerebral spastic paralysis. Naturally this later development of a chronic condition in an apparently normal child was most puzzling and has been ascribed to numerous causes—lack of development, a former meningo-encephalitis, syphilis, hereditary and other causes.

Realizing that the ideal time for treatment of this traumatic condition of the new born, just as in the cases of traumatic intracranial hemorrhage in adults with and without a fracture of the skull, is during the **acute** stage, at the time of birth, during the first week, when the intracranial hemorrhage can be drained in fluid form and thus the danger of later physical and mental impairments be lessened and even avoided, and **not** during the chronic stage—months and years later when the cerebral cortex may have been or has been permanently damaged—and suspecting that this condition of intracranial hemorrhage of the new born was occuring more frequently and much more commonly than had been conceived owing to the paucity and even lack of symptoms and signs at the time of birth, I obtained the permission in January, 1923, for performing a series of lumbar punctures on consecutive new born children, at the City Hospital, Welfare Island, New York City, through the courtesy of Doctors Wilbur Ward and F. A. Dorman, in whose services the following observations have been recorded in three hundred and sixty-four consecutive new born babies.

It was, indeed, surprising to find free blood in varying amounts in

the cerebro-spinal fluid at lumbar puncture, within twelve to forty-eight hours after birth, in nine of the first series of one hundred consecutive new born babies, in thirteen of the second, in ten of the third, and in seven of the last sixty-four cases; that is, thirty-nine cases or ten plus per cent. Two babies died in the first series of one hundred consecutive cases—a ventricular hemorrhage in a seven months baby and a large sub-cortical hemorrhage in the other baby; one died in the last sixty-four cases of the fourth series of one hundred babies —an apparently normal child following an apparently normal labor, with lumbar puncture revealing bloody cerebro spinal fluid; the child suddenly dying fourteen hours after birth from respiratory failure and the autopsy disclosing a large supracortical hemorrhage—and yet there were no clinical signs of its presence until the onset of the respiratory complications. The amount of blood in these cases varied from merely a reddish tinge of cerebro spinal fluid to that of almost pure blood. The test of lumbar puncture itself in these new born babies was simpler than the routine procedure of taking the blood, the essentials being a well flexed spine in the horizontal position, a hypodermic needle instead of the large lumbar puncture needle, and naturally no anæsthesia. In only seventeen cases was there failure or a "dry tap" recorded. In each case in which free blood was found in the cerebro spinal fluid and under varying degrees of increased pressure, as accurately recorded by the spinal mercurial manometer, the cerebro spinal fluid was slowly removed until the pressure descended to the lowest level within normal limits (4 mm.) and a second test twelve hours later was made both to confirm the presence of blood of the first test and also to drain away still more of the free blood until the cerebro spinal fluid should become clear and under a pressure within normal limits (not over 8 mm.).

Clinical Signs: Of the thirty-nine cases having bloody and blood tinged (straw colored) cerebral spinal fluid, only twenty of them had had signs indicative of a possible intracranial hemorrhage, such as drowsiness, refusal or difficulty in nursing and occasionally slight muscular twitches of the orbital muscles or fingers; not one had a convulsive seizure. Repeated lumbar punctures or spinal drainage permitted the cerebral spinal fluid to become clear and under nomal pressure in thirty-one of the cases — as many as nine tapping being necessary in one case. No doubt in the milder cases, the natural means of absorption would have sufficed to "take care of" all of the free blood, but repeated lumbar punctures with spinal drainage certainly assure in the mild cases and aid the complete absorption in the more severe cases; the modified sub-temporal decompression of cranial drainage is only indicated in the extreme cases and after spinal drainage has failed.

The danger of lumbar puncture was in evidence in one case only in which the lumbar puncture was performed, the child being in an extreme condition of shock and, just as in adults having acute brain injuries, no extensive neurological examinations should then be performed, and by no means a lumbar

puncture—the patient being in the condition of shock for all such extensive and prolonged examinations merely increase the shock.

The labor was apparently normal in twelve cases; prolonged in ten cases; low forceps in three cases and medium forceps in seven cases, out of thirty-five forcep applications; the delivery was a breech in seven cases. Not only is the traumatic rupture of the sub-cortical veins and the tributaries of the longitudinal sinuses a chief factor in the causation of the intracranial hemorrhage of the new born, but asphyxia, due to prolonged labor complications of the cord and its surrounding the neck, is also an apparent etiologic factor. Hemorrhagic disease of the new born has been considered a common cause of intracranial hemorrhage in the new born and yet in this series of thirty-nine cases of intracranial hemorrhage of the new born, in not one case was the coagulation time prolonged beyond the normal limits; these tests of the coagulability of the blood were taken within forty-eight hours after birth and it has been stated by several observers that the coagulation time of the blood only becomes lengthened after the third day of life; however, in the thirty-nine cases of intracranial hemorrhage of the new born, later examinations of the blood within two weeks after birth did not disclose a lengthened coagulation time. Only one case in the entire series of three hundred and sixty-four cases had a lengthened coagulation time and this child did not have blood in the cerebro spinal fluid.

Jaundice was associated with the condition of intracranial hemorrhage in seven of the thirty-nine cases but in only two of these cases was the jaundice of the typical hepatic type; whereas, in the remaining five, it was merely an icteroid condition with no discoloration of the conjunctiva; whether this latter is due to an hepatic complication or to an hemolytic complication in the absorption of the intracranial hemorrhage has as yet not been determined and apparently, up to the present time, there is no recognized accurate means to differentiate hepatic from hemolytic jaundice.

At first, the intracranial pressure, as registered by the spinal mercurial manometer within forty-eight hours after birth, was uniformly around seven to eight millimeters of mercury and we were beginning to feel that that degree of pressure was the normal for the new born in spite of the earlier belief that the intracranial pressure would be lower in the new born than in the adult on account of the open fontanels and the greater formal elasticity of the dura in them. However, upon the discharge of these babies two weeks after birth, a lumbar puncture revealed an intracranial pressure uniformly around three and four millimeters of mercury — apparently, there had been an acute cerebral edema of mild degree at the time of birth—whether due to moulding of the head or to nature's protective mechanism of the brain and this cerebral edema disappeared within from ten days to two weeks after birth.

Impressions

(1) Intracranial hemorrhage of varying degree occurs much more frequently than has been conceived

—cranial trauma and asphyxia during parturition being the chief factors; prolonged labor rather than the early application of low forceps being a mean cause.

(2) Clinical signs of the presence of intracranial hemorrhage in the new born are often lacking and not recognized; drowsiness, refusal or difficulty in nursing and muscular twitches are most suggestive.

(3) Early lumbar puncture, both as a diagnostic and as a therapeutic aid is most essential in the rational treatment of the acute cases and in the preventive treatment of the possible future chronic cases of cerebral spastic paralysis with mental retardation.

* * *

Discussion

Dr. Golden: Dr. Sharp has dwelt on the two periods after cranial injury in which operation is contraindicated. Will he kindly say a few words as to the period when the operation is indicated?

Dr. Rowley: I would like to ask Dr. Sharp if he has done any decompressions on the new-born for cerebral injury rather early after the diagnosis has been made, and what are the indications for decompression in that type.

Dr. Hupp: I would like to ask Dr. Sharp what we may look for in the intravenous use of mercurochrome or gentian violet in the sterilization of brain abscess.

Dr. Butt: What is the after care in injury of the brain, and how soon should they be allowed to leave the hospital and go to work?

Dr. Holland, Fairmont: In view of the fact that we think in many cases of brain hemorrhage that the difficulty is not so much due to the stress the brain has undergone as to the possible tendency of the newly-born to hemorrhagic disease, added to the stress which the child's head undergoes in passing through the birth canal, I want to ask if, after doing the lumbar puncture for the relief of pressure, would Dr. Sharp advise the giving of whole blood intramuscularly as a routine in these conditions?

Dr. Cannady, Charleston: I would like to ask Dr. Sharp to discuss what he considers the relative merits of decompression by resection of the skull and relief of pressure by lumbar puncture, and whether or not these two procedures may supplement one another. I want to ask, also, what are his usual indications for lumbar puncture for the relief of pressure, and how frequently he is accustomed to repeat it.

Dr. Sharp, closing the discussion:

It is very flattering, gentlemen, to have such interest in this subject shown. As I stated before, I apologize for coming down into a section where you have so many brain injuries and presenting a paper on this subject. I know I could gain a great deal from your experience.

When is operation indicated in adults? I feel that so often the operative treatment of brain injuries has practicaly been discarded, due to the operation in those two periods when no operation should be performed — shock (initial shock) and then the terminal stage of cerebral edema. I feel that if the patient is watched carefully, with the use of the spinal mercurial manometer, you can tell when it is time to operate. To wait for the blood pressure to rise and for the increase in the pulse rate, which are definite symptoms of high

pressure upon the medulla, and to operate then is to put the patient in a very serious condition. It is fifty-fifty whether he recovers or not. I do feel that with the spinal manometer and with the fundal changes in the opthalmoscope we can anticipate medullary changes. If the patient is in shock when he comes into the hospital, treat him for shock and make no examination. Do no lumbar puncture, no operation. When he recovers from shock, if he does, do a lumbar puncture. If the pressure is fourteen, say, do another lumbar puncture twelve hours later. Then if the fluid is under pressure and is bloody, permit the fluid to escape until the pressure is eight. It is only when you withdraw the pressure under the normal that there is any danger. If at the second test, twelve hours after the first, the cerebrospinal fluid pressure is rising, sixteen or even eighteen, and we allow the cerebrospinal fluid to escape until it comes down to six or eight, and then at the third test it is twenty, showing we are not relieving the pressure by lumbar puncture, then I think a decompression operation is indicated, not only from the standpoints of life, but in order to restore normality. I do feel that the expectant, palliative treatment should be tried upon all patients, by which I mean the ice-bag, quiet, etc., then repeated lumbar punctures and spinal drainage. They should be carefully watched by the spinal manometer, and only operated upon when the spinal puncture does not lower the pressure. That is the period to operate, whether the pulse be seventy or sixty or what not, and whether the patient be unconscious or not. So often I have seen patients who were never unconscious but who never became well, having headaches, dizzy spells, etc., three or four years later. Of course, unconsciousness is a very serious sign, but it is a question of pressure, and of high pressure.

As to decompression in new-born babies, I feel that very few require decompression. We have had thirty-nine with bloody spinal fluid, and have not operated on any. We might have operated on one, which died with subcortical hemorrhage, but we did not realize the extent of the hemorrhage. The great difficulty is to know when to operate in the new-born, our hope being that the spinal puncture will take care of the large majority of these babies.

Regarding the use of mercurochrome in brain abscess, I have not had any experience. I do feel that brain abscess in the cortex is a most serious condition, for the reason that even if it is located and drained it is so often a chronic condition, and has a thick wall of bacteriogenic membranes, so even if you drain it the wall does not collapse, but remains there and refills. I have lost so many of my brain abscess cases and find at autopsy a thick pyogenic wall. I think it is wrong to wait for that thick wall, if you have made the diagnosis. The difficulty is to make the diagnosis, and I think then you should operate as soon as possible.

As to the after care, and how soon an adult may go to work, if the pressure is normal I feel that the patient can go back to work without serious risk. It is important in these cases that they should have no meat, no meat soups, no

coffee, no tea, no alcohol, but should live upon plain vegetable diet, keep the bowels open, and observe all the usual hygienic measures. In my own experience, I find the ones with the increased pressure have a definite organic basis for their neurotic complex. Realizing that in one out of fifteen gross primary lesion of the brain has occurred, those are the ones that can be classed as pure neuroses, rather than having any organic basis for their complaints.

Hemorrhagic disease of the newborn: Pediatricians believed that hemorrhagic disease of the newborn was the chief factor in these cases. In our series we had only one in which the clotting time was prolonged, out of thirty-five with bloody spinal fluid. I feel in all these cases, even if we give the blood serum intramuscularly to hasten the clotting time, we should consider withdrawing the bloody spinal fluid as much as possible by lumbar puncture, to prevent any residue of a layer of blood occurring. To give blood intramuscularly aids in stopping the hemorrhage, but does not aid in getting rid of the hemorrhage that has occurred and which does the damage later.

I think all these patients should have lumbar punctures performed upon them to see if the expectant, palliative treatment with lumbar puncture will not keep the pressure down.

As to the use of magnesium sulphate, I have had very little benefit from it in acute brain cases, although somewhat better results in chronic cases. In acute brain cases I have had no results at all from using magnesium sulphate. If the expectant, palliative treatment, with lumbar puncture, does not lower the pressure, then they require decompression. As I said, in this large series, thirty-one per cent required decompression.

TREATMENT OF COMPOUND FRACTURES

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Chairman's Address, Read Before the Surgical Section, Annual Meeting West Virginia Medical Association, Wheeling, May 1924.

Since July 1, 1916, it has been my fortune to treat fifty-three cases of compound fractures of the long bones; these do not include injuries of the hands and feet. While not a large series, yet we feel there have been sufficient number of cases under observation, and our results have been such as to merit a report of the method used in treating these cases and the results obtained. Realizing the necessity of devising some means of preventing infection in these cases, we adopted the following procedure: After the parts have been painted with iodine solution, the fracture is exposed by a long incision, either Tincture of Iodine or Di-chloramine T is abundantly applied to all parts of the wound; all devitalized tissue is excised and bleeding points ligated. The fracture is then reduced, which is readily accomplished in most cases. If there is any question about not being able to maintain the fractured ends in apposition we resort to Kangaroo tendon sutures which are securely held by drilling holes in each fracture end and pass these sutures through the same. The wound is then clos-

ed in layers, using plain cat gut for the deeper tissues and silk worm gut for skin approximation. No drainage of any kind is used. A plaster cast is immediately applied which includes the joint above and below the site of injury. These cases are carefully watched to see that the circulation is not interfered with and that the temperature remains practically normal. On the tenth day a window is cut in the cast and the sutures removed. This cast is changed at the end of two weeks and passive motion of the joints is begun. Usually, all support can be discontinued safely after seven weeks and the patient allowed to bear weight upon the injured limb within ten weeks from the time of injury. In this series of fifty-three cases we have had six cases to develop infection, two of which were not treated as outlined in this paper, which facts I am confident account for the poor results. The third was a gun shot wound of the knee which developed infection within forty-eight hours; this patient subsequently lost his limb. The fourth case was one in which the patient received a most extensive injury to the left leg; the tibia was comminuted and there was considerable injury to the soft tissues, the laceration extending from knee to ankle. This case developed gas infection within thirty-six hours and died in less than eight hours after the onset. The fifth case developed a low-grade infection following removal of the first cast and beginning of passive motion. The sixth case ran an elevated temperature for three days and upon opening the cast we discovered pus in the incision.

I would not dare presume upon your time by attempting to discuss these cases in detail, however, I do want to emphasize the importance of operating early and thoroughly; and urge upon you the advantage of closing these cases without drainage after following the procedure as outlined. In this series we have had almost every conceivable type of compound fracture to deal with, cases in which there was extensive destruction of the soft tissue and in some instances from twelve to twenty-four hours had elapsed before the patient reached the hospital.

Our results in this small series have convinced us that by converting a compound injury into a simple fracture we are assured of a better functional result, a greatly reduced period of convalescence and in many cases we feel that we have been able to save limbs.

OCULAR DISTURBANCE DUE TO INTRANSAL PRESSURE AND SINUS INVOLVEMENT

By C. B. WYLIE, M. D.
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Read Before the West Virginia Medical Association, Wheeling, May 14, 1924.

Though the literature relating to the influence of nasal disease upon the visual apparatus is at present very extensive, it is hardly more than twenty years since the first suggestion of any possible connection between the two was first put forward. When Onodi, the great Austrian otoologist, addressed the British Medical Association in 1904, he stated that the replies to a questionaire which he had sent out to lead-

ing eye and nose men in Central Europe, indicated that very few of them had ever dreamed of associating ocular lesions with pathologic nasal conditions, though one or two thought there was a possibility of sinus disease being, in some cases, responsible for the existence of optic neuritis.

Much work along this line has since been done, and it is in this country, more than any other that the investigations and painstaking studies which have made available our present knowledge of the pathology of the accessory sinuses, have been carried on. As far back as 1900, Ewing and Sluder directed attention to a certain ocular condition the symptoms of which they described as "Inability to use the eyes for near work because of headache which is produced thereby, and which is not relieved by glasses or eye treatment." It is accompanied by a tender point in the upper inner angle of the orbit—a diagnostic indication since known as **Ewing's sign**—the etiology of which Sluder explains by saying "that secondarily to closure of the frontal sinus, there arises a congestion of the lining membrane, in which the bone takes part to a degree which, however slight, is sufficient to render the thin wall of the sinus sensitive to even slight external pressure. The pulley of the superior oblique is attached to this thin wall. The function of this muscle being to turn the eye downward, it is called into use for most of the acts of accommodation; so for close work there continues more or less of a tugging at this tender point."

In the consideration of any relation between diseases of the eye and those of the sinuses, an intelligent comprehension of the anatomical factors involved is absolutely essential. These anatomical facts have been briefly summarized by Brodley as follows:

The lateral and inferior walls of the orbit in the neighborhood of the accessory sinuses are, as a rule, very thin and are covered by periostem which is closely attached, and which is frequently penetrated by numerous diploic veins which arise in the sinus walls and empty into the orbital veins. As the periosteal covering of the orbit passes into the optic canal, it becomes so interwoven with the dural sheath of the nerve as to be microscopically inseparable from it. The walls of the optic canal frequently separate the nerve, either from the sphenodial sinus, the most posterior of the ethmoid cells, or from both, as has been so beautifully demonstrated by the published studies of Loeb and Onodi.

In considering the involvement of the optic nerve in sinus disease, it is also well to bear in mind the circulation in both the orbit and the sinuses. The orbit in the main derives its supply from the ophthalmic artery, and its veins empty into the ophthalmic vein. The vascular portion of nerve is directly supplied and drained by the arteries and venae centrales retinae. The central artery and vein send off small branches which supply to the avascular portion, the posterior central artery and vein. The intracanalicular portion derives its supply from the small muscular branches of the ophthalmic artery and is drained by the vein of Vossius, which empties into the cavernous sinus. This vein has numerous branches from the periosteum of the posterious portion of the orbit

and from the periosteal lining, of sphenodial and posterior ethmoidal sinuses. The portion of the intra-canalicular nerve occupied by the papillomacular fibers is elaborately supplied with capillaries; the more peripheral portion by small arteriods. The blood and lymph[1] circulations of the orbit and sinuses are intimately interwoven.

A no less important factor in the relationship between the eyes and the sinuess is the nerve distribution. Two branches of the supraorbital nerve supply a large portion of the nasal mucosa, the branches of the posterior ethmoidal being distributed to the sphenoid sinus and posterior ethmoidal cells, those of the anterior ethmoidal to the septum, roof, middle turbinate and anterior portion of the inferior turbinate. Anastomotic branches add to the connection between the oculo-orbital and nasal nerve supply. According to the observations of Sluder, it is the nerve relations of the sphenoid sinus which constitutes the means by which ocular symptoms may follow disease of this sinus.[7]

The closeness of these anatomic relations makes it easy to comprehend how disturbance of ocular muscle balance may result from a pathologic intra-nasal condition, and how the optic nerve can easily be involved in any sinus affection. White of Boston divides optic neuritis into three types:

1. Those due to a direct spreading of the inflammation to the sheath of the optic nerve from the focus of infection.

2. Those due to toxemia from infection in the sinuses.

3. Those due to hyperplasia.

Very often it will be difficult if not altogether impossible to distinguish the type of lesion with which we are confronted. The hyperplastic cases are especially difficult. Hyperplasia has been defined by Vail as a rarefying osteitis associated with inflammatory swelling and thickening of the mucous membrane lining the accessory sinuses. It is brought about—according to Delafield and Prudden by long-continued hyperemia. Many obscure cases of loss of vision are undoubtedly due to disease of the accessory nasal sinuses, and all too frequently are allowed to go on to optic atrophy, when a correct diagnosis at the first onset of the neuritis might have preserved the patient's sight.

Disturbances of ocular muscle imbalance due to sinus disease have been classified by Ingersoll as inflammatory and mechanical. Under inflammatory he places those cases caused by extension through blood vessels or lymphatics, or by direct continuity of primary intra-nasal inflammation; the effect being brought about rather by irritation than by the pressure of a gross pathological abnormality. The attack may be directly upon the muscles themselves ,where they lie in close apposition to the bony walls, or by irritation or destruction of the motor nerve before it reaches the muscle. This is seen most frequently when sphenoidal sinus inflammation affects the sixth nerve as it passes in the groove in the orbital side of the sinus wall, resulting in a palsy or paralysis of the external rectus. It is probable, according to Ingersoll, "that many of the external muscle involvements hitherto referred to under the vague term of 'rheumatic' are caused by direct irritation of the bodies of the muscles which lie close to the walls of the

inflamed ethmoid cells. Even in relatively mild inflammations, the extreme delicacy of the separating partitions permits the formation on the orbital side of a certain degree of periostitis sufficient to cause irritability of the muscle groups lying along the inner and upper walls, the the most freuently affected being the internal rectus, superior oblique, superior rectus and lavator palpebra."

Sometimes it is very difficult to locate the cause of this type of ocular disturbance, especially if it has its origin in the deeper ethmoid cells. The extent of the muscle involvement is to a great extent dependent on the location and severity of the original focus in the nose or its accessory sinuses, so correct diagnosis becomes a matter of extreme delicacy and ever-increasing importance.

When we come to consider the mechanical causes of eye disorder which nasal disease is likely to promote we find a number of conditions which, though perhaps offering less difficulty in diagnosis, make up for it in the poor results which often follow our best efforts for their control and elimination. Displacement or loss of motility of the eyeball may be induced by a variety of pathologic conditions within the nose. "Areas of periostitis resulting from sinus inflammation may often reach considerable size and, in chronic cases, cause a permanent protrusion within the orbit. Gummata, mucoceles and sarcomata are not infrequent occurrences within the nasal accessory sinuses, and their extension into the orbit is sure to result in lessened motility both from actual pressure on the globe, and by destruction or irritation of the actuating nerves and the muscle tissue itself. Necrosis of the sinus walls, with fistula formation into the orbit followed by exudative processes and edema; will have the same effect, and it is not always easy to tell whether the condition is primarily nasal or orbital."

According to Loeb and Wiener, "most of the orbital complications are due to frontal sinus inflammation; the ethmoid follows, then the sphenoid, and finally the maxillary is occasionally the cause. A frontal involvement is indicated in swelling limited to the upper lid with the eyeball pushed down and towards the temple with crossed diplopia and vertical deviation; ethmoiditis, in swelling at the inner canthus evenly divided between the two lids, with the globe pushed towards the temple, and crossed with no vertical deviation; and a sphenoidal empyema, in swelling of the lower lid, a predisposition to chemosis in the lower quadrant of conjunctive."

Returning to a consideration of involvement of the optic nerve we find that much has been said and written upon the subject of retrobulbar optic neuritis and its relation to sinus disease. White claims that of his three types of optic neuritis already mentioned, the first and second are easy to diagnose "either from inspection or from roentgenogram;" it is the hyperplastic type which is most frequently a source of failure in diagnosis

Patients suffering from optic neuritis are seldom seen by the rhinologist until the disease has made considerable progress. "It is the eye surgeon," says Ellett, "who will meet them, since the disturbance of vision is the prominent factor

when the optic nerve is involved." But the importance of prompt correct diagnosis cannot be too strongly emphasized, for upon it usually depends the patient's hope of retaining even a small part of his normal vision.

The simplest form of retrobulbar optic neuritis is that of sudden monocular impairment of vision, varying from partial to total blindness, with central scotoma for color, combined with a normal fundus. There may be in addition, one or or more of the following symptoms: interference with the cranial or sympathetic nerves located in the orbit, resulting in variation in the size of the pupil; interference with the action of the extra-ocular muscles, or ptosis; exophthalmos, varying from a degree that is detectable only by measurement with an exophthalmometer, up to proptosis, plainly discernible by inspection; swelling of the lids; pain and tenderness in the orbit; engorgement and tortuosity of the retinal veins, with an occasional thrombosis; optic nerve involvement, shown by paling of the disk; neuritis, varying from simple blurring of the edge to the stage of greater elevation, known as choked disk; variation in the field of vision, consisting of enlargement of the blind spot, central and paracentral scotoma for white and color, and contraction of the field of vision. Frequently both eyes may be involved, in which case there is a combination of symptoms in each.[9]

The pathologic process is, in the opinion of Stark, based upon two factors; primarily, the infection of one or more of the nasal sinuses, usually the posterior, with interference with drainage through the natural opening caused by anatomic obstruction or swelling of the soft parts. This condition may exist for many years without the knowledge of the patient, its result being thickening of the mucous membrane; the development of periostitis; osteosclerosis, or thickening of the bone; osteoporosis or rarefaction of the bone, being in fact, the condition which when found in other parts of the body is termed osteomyelitis. In other words, the hyperplasia postulated by White.

The second factor which Stark mentions is the sensitization of the tissues of both the sinus and the orbit by bacterial proteins, producing an allergy resulting in a localized anaphylactic reaction each time the individual comes in contact with a fresh infection of the same bacteria in the nose, and possibly other parts of the body. For that reason many of these patients give a history of attacks resembling hay-fever or acute coryza, shortly previous to the eye trouble.

If there is any variation from the normal anatomical relations of the nasal sinuses, which brings a diseased cavity in closer proximity to the optic nerve, this brings into play all the factors necessary to set up a retrobulbar neuritis of the type under discussion. It is, therefore, not a localized process only, but may also depend upon systemic changes. The pressure may be exerted suddenly, or its application may be gradual, due to a low-grade cellulitis, produced by the repeated localized anaphylaxis. Bordley has been able to demonstrate that this condition is due to pressure, by packing the sphenoid with cotton, which set up similar symptoms.

The symptoms upon which the diagnosis must be based will, in large measure, be dependent on whether the involvement of the nerve is sudden or comparatively slow. Where there is sudden involvement, the symptoms are usually so pronounced and so plentiful that there is little room for doubt; but if the development is slow, the problem is much more complicated.

The posterior ethmoid cells and the sphenoid may not only be in close relation with the optic nerve of the same side, but can even extend beyond the middle line so as to come into relation with the optic nerve of the opposite side. It is therefore possible, according to Gallaher,[3] that either of these cavities may produce double optic neuritis. The optic nerve may traverse the cavity of the posterior ethmoid cell. Hyperplasia of the membrane lining the posterior sinuses is the most frequent cause, but very often suppuration will be absent; if it is present, the nerve may become involved by direct extension to the sheath, or by the toxins. The low grade of inflammation in the hyperplastic tissue extends to the neighboring parts, involving the back of the orbit, and particularly causing a swelling of the periosteum in the optic foramen which results in compression of the optic nerve.

The central scotoma is produced by the peripheral pressure, which causes compression of the delicate fibers in the center of the nerve, which supply the macula. This accounts for its being one of the earliest and most pronounced symptoms. That no vascular changes can be observed in the fundus, is due to the fact that the vessels pierce the sheath back of the orbit, anterior to the optic canal.

It should be especially emphasized that in the hyperplastic type nasal examination will often show no variation from the normal, for no pus will be in evidence, and all too frequently this is taken as an indication that the sinuses are not responsible in any way for the eye condition. White gives an impressive list of cases where marked hyperplasia of the sinuses existed with nothing in the nose to suggest it. Thomson tells us that even during operation no evidence of sinus disease appears, although some observers do speak of finding the mucous membrane lining the sinuses "dark, red and congested." Yet when a free opening has been made into the sphenoid and adjacent ethmoid cells, twenty-four to forty-eight hours will see an improvement in the vision of the affected eye. "Scotomas with only moderate decrease of vision may disappear entnrely, while the more severe cases may show material gain, though the final vision may not be secured for several weeks. In certain cases where perception of light is lost, the periphery of the field is first restored, the case passing through the color scotoma phase, to final normal vision. Where the case has gone on to atrophic changes in the optic nerve, it is usual to secure a marked improvement in vision if the operation has not been too long delayed."

There is at present a tendency to standardize the handling of all these retrobulbar neuritis cases. A careful preliminary examination is made of the throat, teeth and nervous system, the Wasserman test is applied, and the sinuses subjected

to minute scrutiny. Stark recommends the use of a suction apparatus at first, continuing its application if improvement is noted, but if the condition is not ameliorated, advising operation, even when all nasal findings are negative. The first attention is directed toward relieving the pressure with as little damage as possible, which he believes is best accomplished by operating on the middle turbinate, advancing to exploration of the sinuses, if the first procedure brings no results. "The result depends to a large degree on the stage of the disease. When the pressure is relieved early, provided previous attacks have not caused an exudate around the nerve, there is a good chance for complete and apparently permanent recovery. When the pressure has been in existence for some time, and especially when there is localized inflammation with exudate, even if it is relieved, we still have to contend with an allergy and subsequent shrinking which may destroy the function of the nerve."

The chief point to be emphasized in all the phases of ocular disturbance of sinus origin, is the importance of promptness in instituting measures of relief. Delay is not only dangerous, in the majority of cases it is fatal. We are told that many patients suffering from retrobulbar optic neuritis recover spontaneously, that the tendency is toward recovery. This is undoubtedly true, yet the number of those who go on to partial or complete blindness, if left untreated, is altogether too large to make a policy of non-interference justifiable. Operation upon the sinuses is not without its hazards, but they are small compared to the risk of loss of sight. In competent hands, with every attempt to employ conservative measures as far as possible, there is little to fear, and the brilliant results of intranasal surgery in the control of these eye affections, is its own justification.

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FRACTURE OF FEMUR BY INDIRECT VIOLENCE FOUR YEARS AFTER TREATMENT FOR JUVENILE DEFORMING OSTEOCHRONDRITIS.

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A robust boy nine years of age was playing with other boys and one playmate unexpectedly jumped on his back while he was in the erect posture, causing a comminuted fracture of the left femur at the juncture of upper and middle third. Upon examination of the X-Ray plate which had included both hip joints there was found to be quite a difference in the outline of the heads of the two bones. The X-Ray plate revealed a typical picture of a

condition first described by Dr. A. T. Legg of Boston in 1910 and is termed Juvenile Deforming Osteochondritis. Perthe two years later described the same condition and the disease is better known as Perthe's disease in spite of Legg's prior claim.

This condition usually occurs in children ranging from seven to fourteen years of age and so far as is known occurs only in the hip joint. It might have occurred elsewhere and passed unrecognized. What makes this disease more than of passing interest is the fact that it occurs at the age when we are ready to quickly diagnose any disability of the hip joint as tubercular because we have all been taught that tuberculosis is most frequently met with at this age period. Besides the signs and symptoms are quite similar to those of tuberculosis. The child does not re-act to tuberculin. There is very little destruction of tissue with a consequent shorter convalescence than in tuberculosis, and the joint returns to a more nearly normal state. Sometimes there is considerable limitation of motion due to changed position of the head upon the neck of the femur. The etiology of this condition has not been determined. Galvin has very recently reviewed the literature with special reference to the etiology and concludes that "It is due to trauma which causes a disturbance of the arterial supply about the epiphysis." An infection may be superimposed on the original process. He reports three cases of his own to support this view. It is more frequent in male than female.

One cannot make a diagnosis by analyzing the symptoms alone, but the X-Ray picture when once seen will be long remembered. The X-Ray interpretation of Bactjer and Watters is easily understood. "There is no hazing and clouding of the joint as in T. B., on the contrary all bone detail is clean and sharp. The epiphysis is not eroded nor worm eaten. The epiphysis seems to have softened and become flattened out as if from pressure. The cartilage is intact, but the compression of the epiphysis makes it seem denser than normal, as if there were increased deposition of calcium salts. The epiphysis is occasionally separated into several centers as if broken by pressure. The neck frequently seems broader than normal and there may be slight coxa vara present as if the neck had softened and was bent. The lesion apparently confines itself to the epiphysis and does not involve the acetabulum directly, though changes in the shape of the epiphysis of the head of the femur may later mechanically alter the acetabulum, one or both of the hips may be involved."

The history of this case is of interest in that five doctors failed to recognize the condition and diagnosed the case as tuberculosis of the hip. This boy was first treated in June 1918 for a tubercular hip. A brace was fitted and worn for several months. A new team of doctors then put him in plaster cast for several months with no improvement. In November 1919 he was taken to an eastern city and there the diagnosis of Juvenile Deforming Osteochondritis was made. He was kept under observation there for several weeks and sent home cured, but with one-half inch shortening of his left leg. Four years

elapsed with no signs or symptoms of anything abnormal. He led an active outdoor life, joining in all games at school and at home and while playing received the fracture as above noted. The X-Ray plates taken immediately after the fracture showed an unusual condition present. There is a chipping off a large fragment of bone on the outer surface of the femur resembling a chip of wood from a lumberman's axe. The appearance is that of a brittle bone. There is no evidence of any tumor or infection.

The fact that this boy received a fracture of the femur by indirect violence four years after being pronounced cured of a disease of which the etiology is not definitely known should justify a longer and closer observation of these cases.

SIMULTANEOUS TRAUMATIC DISLOCATION OF BOTH HUMERI*

By AIME PAUL HEINECK, M. D.
Chicago, Illinois

Simultaneous traumatic dislocations of both humeri form the subject matter of this paper, based exclusively upon the analytical study of all cases (fifty-eight in number) reported in the English, French and German literature from 1836 to 1923, supplemented by the clinical observation of one personal case. All the cases were (a) in location, bilateral, (b) in occurrence, simultaneous or immediately successive, and always caused by the same accident, (c) in nature, complete, (d) in causation, unquestionably traumatic.

We have discarded cases of habitual dislocation. Habitual or recurrent dislocation is a condition of joint instability characterized by repeated, frequent and complete abnormal separation of contiguous joint-surfaces. It occurs upon slight provocation and is often consecutive to a traumatic condition.

Incomplete, congenital, pathological, or spontaneous dislocations and those that were not simultaneously bilateral, are outside of the scope of this paper.

Bilateral shoulder dislocations occur in both sexes and at all periods of life. They are more frequent in males than in females.

The external violence which dislocates the humerus in adults, in children commonly gives rise to elbow dislocations, to fractures of the clavicle, to humeral epiphyseal separations. Bilateral shoulder dislocations are very rare before the twentieth year. In advanced life, shoulder dislocations are equally rare.

Bilateral simultaneous shoulder dislocations are either caused by external violence, direct or indirect, or by muscular action, acting singly or co-jointly. Violent shocks or wrenches acting simultaneously on the two arms can produce simultaneous bilateral shoulder dislocations. In five cases (1, 2, etc.) it was definitely reported that the dislocations were caused by violent muscular contractions incident to epileptic convulsions. In case 3, puerperal convulsions were the causative factor. In five other cases muscular action also was the provocative force. My patient fell from a ladder, striking the ground with both hands, arms and forearms being fully extended.

*The numbers in the article refer to illustrative cases, for which see the bibliography.

From the standpoint of prognosis and treatment, shoulder dislocations can be classified into recent and old. Dislocations become old through faulty diagnosis, faulty attempts at reduction and often through surgical neglect. In old dislocations, the articulation itself and the peri-articular tissues are the seat of structural changes. The anatomical relations of the head of the humerus and of the glenoid cavity are altered. The glenoid fossa may be partly or wholly obliterated by cicatricial tissue, calcified cartilage, etc. In old dislocations the various bloodless manipulative and other non-operative procedures are often, owing to these changes, powerless to affect either an anatomical or a functional cure.

There are several anatomical classifications in current use. Lack of uniformity in nomenclature is regrettable, is misleading. The exact anatomical relations of the displaced head are either not given or unqualified expressions as "backward" or "downward" displacement are used.

In thirty-six cases both dislocations were of the same anatomical type, and were symmetrical or closely symmetrical. In case 4, a double "luxatio erecta," the humeri were fixed in vertical elevation, both glenoid fossae were empty, both shoulders presented a distinct hollow beneath the acromion process, and in each axilla the numeral head could be palpated as a hard, globular, mass. In a bilateral subclavicular dislocation (5) each humeral head was lying against the second and third ribs, just below the clavicle. In case 6, a bilateral intra-coracoid dislocation, the head of each humerus could be felt to the inner side of its corresponding coracoid process; the inward displacement was more marked on the left side. Case 2 was a bilateral and symmetrical subspinous dislocation, each humeral head being palpable beneath the spine of its corresponding scapula.

Different reporters use unlike terms to designate like displacements. The description given in the case reports does not enable one to differentiate subglenoid dislocations from those termed axillary. Nevertheless, we use here the nomenclature found in the original publications. In two cases (7, etc.) the reporters state that the head of the bone was displaced into the axilla. In my case, the head of the bone was palpable on each side immediately below the coracoid process of the scapula.

In six cases the dislocations were bilateral and in the same general direction, but dissimilar in anatomical type. A subglenoid and a subcoracoid dislocation were present in three cases (8 etc.). In case 9, the left humerus was displaced into the axilla, the right under the clavicle. In case 10, the left humeral head rested on the anterior margin of the lower border of the scapula just below the glenoid cavity, and the right humeral head was prescapular, lying between the anterior surface of the bone and subscapularis muscle. Case 11 presented a subcoracoid and an intracoracoid dislocation.

In shoulder dislocations, the articular and peri-articular soft tissues are contused, lacerated and infiltrated with blood. The synovial fluid is blood-tinged and increased in amount. A tear of the joint capsule, through which the head of the

bone has escaped from its normal habitat, is present in all cases. The greater frequency of forward and downward displacements is due to the fact that the capsular tear is usually on the anterior and inner portion of the joint-capsule, at its lower aspect. The capsule at its lower portion is not reenforced by any ligament or muscle. The capsular tear and the untorn portion of the joint capsule control, determine in a large measure the type of displacement. Sometimes there is a detachment of the subscapularis, the teres minor, the supra- and infra-spinatus muscles, singly or together, from their insertion. At times a bony fragment consisting of the outer shell or cortical layer of the humerus is torn off with these muscles. Fractures of either the greater or lesser tuberosities are not uncommon. They vary in extent, may constitute a formidable obstacle to reduction and predispose to reluxation.

The diagnosis of these fractures is difficult because the detached fragment cannot often be felt and crepitus cannot often be elicited. A valuable aid to diagnosis is the radiogram; but one must bear in mind that a torn subdeltoid bursa full of clotted blood may, by throwing a shadow, simulate a bone-fragment.

The following associated injuries are recorded: Bilateral fracture and detachment of the greater tuberosities, fracture of the right coracoid process near its base, compression of the axillary nerves and vessels, contusions of various portions of the body. They complicate the prognosis. As distal, though not related, associated injuries, the following are reported: Skull fracture, fracture of the lower third of the femur, compound fracture of the middle of the left leg, complete (bilateral) dislocation of the jaw, gangrene of right foot. Fracture of the surgical neck of the humerus was not present in a single case. It is not rare in unilateral dislocations.

Some symptoms are common to all shoulder dislocations: Pain, loss of function, rigidity, patient is unable to use his arms. In my case the loss of function and joint-rigidity were complete. There are symptoms that occur only in certain types of displacements: the location of the humeral head, the position of the elbow, etc., differ in the various anatomical forms. In complicated cases, one finds, in addition, the alterations of function, of structure and of contour due to the co-existing injuries.

In all bilateral shoulder dislocations, note the direction of the axis of each humerus, note the relations of the bony landmarks of the shoulder region, note the extent of functional impairment and the degree or range of joint-mobility. Any deviation from the normal is symptomatic of underlying pathology.

In unilateral dislocations, to establish a diagnosis, one compares the injured shoulder with the unaffected. In bilateral dislocations, the clinician cannot avail himself of this aid as both shoulders are, most always, symmetrically deformed, the measurements of both sides often not differing half an inch; at times they are similar. In my case, the measurements of both arms were practically identical. Secure full exposure of both shoulders by divesting upper portion of chest of all unnecessary clothing.

The rotundity of the shoulder depends partly on the head of the humerus being in its proper place and partly on the integrity of the deltoid muscle. Therefore, in all inward, downward and backward displacements of the head of the humerus, the normal contour of the shoulder is lost and there is present a double deformity: a distinct flattening of the shoulder region, due to the absence of the head of the bone from its normal place, and an abnormal bulging due to the presence of the displaced head in its new habitat. In dislocations, the deltoid slopes straight from the acromion, or sinks in, having an indented appearance at its insertion. An empty glenoid cavity and abduction of the arm accompany all shoulder dislocations. The roundness of the shoulder is not present.

In all shoulder dislocations, the head of the bone can, by painstaking inspection and palpation, invariably be detected in an abnormal location.

In all bilateral dislocations of the head of the humerus there is a distinct hollow or hiatus beneath the acromion process, this hiatus being less noticeable in sub-acromial dislocations.

In old and recent dislocations, the deformity is so characteristic that the diagnosis is often made by inspection and palpation. In obese and muscular individuals, exact diagnosis is more difficult.

In all cases, it is advisable to have both shoulders radiographed. The radiograms serve as a record, as a guide; they often clear up many unsuspected conditions, and establish the diagnosis upon an indisputable basis. Radiograms show the exact location of the humeral heads, reveal the presnece or absence of complicating osseous lesions: fractures of the humerus, of the surgical neck and coracoid process of the scapula. They remove doubts from the clinicians mind. Stereoscopic pictures are less liable to misinterpretation.

Complicating injuries of the nervous system are evidenced by motor, sensory and trophic disturbances. Some of these nervous lesions are irremediable; others, such as contusions, compression, stretching and division (partial or complete) give, under appropriate treatment, a hopeful prognosis. At the first examination, one should exclude an involvement of the circumflex or other nerves; sometimes the nerve involvement affects all the muscles of the upper extremity. In non-reduced cases, the nerves may be compressed by scar-tissue. By taking the pulse, one is enabled to ascertain the presence or absence of important vascular injuries.

Recent dislocations are reducible or irreducible. Primary irreducibility is usually due to some complication. Associated fractures, detachment of either humeral tuberosity, especially if the detached fragment lie in the glenoid cavity, hinder reduction, predispose to recurrence, The indication to suture or nail the detached fragment to its normal place may prevail.

Recent dislocations call for immediate reduction. At the outset, let us emphasize that the treatment of choice is non-operative. In the treatment of shoulder dislocations, operation is a last resort.

Anesthesia (chloroform, ether, etc.) facilitates reduction, it abolishes pain, it overcomes muscular spasm and the patient's resistance;

with its aid, one can by gentle manipulation gradually break up adhesions opposing reduction. It is especialy serviceable in muscular individuals.

In nineteen cases (8, 9, etc.), non-operative methods, unaided by anesthesia, successfully effected reduction. In some cases, one humerus is easily reduced without anesthesia, while the reduction of the other necessitates anesthesia. In twelve cases, to effect reduction, non-operative methods had to be supplemented by general anesthesia. In my case, to secure reduction, the patient was etherized.

In many cases, the clinicians noted the occurrence of a peculiar jerk, of a distinct audible snap upon return of the bone to its socket (8). Instant relief from pain often follows reduction.

Among the non-operative methods, Mothe's method was used in one case (11), Kocher's method in ten cases (12, 13, etc.). In twenty-seven cases reduction was effected by various bloodless manipulative procedures supplemented by extension and counterextensions (7, etc.). The extension is made by the operator, his assistants, weights or pulleys, counterextension, by axillary pads, by heel in the axilla (8, 9, etc.).

After reduction, the shoulder must be immobilized long enough to allow the repair of the capsular tear. It is also imperative that passive and active motion, and massage, be instituted early enough to avoid ankylosis.

The treatment of old dislocations requires great care. In old dislocations, the difficulty of reduction is due to various factors: Cicatrization and contraction of the capsular tear, inflammatory adhesions binding the head of the humerus to the surrounding structures, obliteration of the glenoid cavity, adhesion of the joint-capsule to the periphery or to the entire glenoid fossa, interposition of tendon or muscle, etc.

Some old dislocations are amenable to bloodless manipulative procedures, others require operative aid. Though not always successful, the former should always be first attempted; successful bloodless manipulative methods secure better functional and anatomical results than operative treatment. When manipulation, traction by pulleys, etc., supplemented by anesthesia, fail to obtain reduction, operation, if not contra-indicated, is to be performed. Arthrotomy permits direct inspection of the articulation and of the contiguous structures. It enables the operator to determine, to remove obstacles to reduction.

Unreduced dislocations are accompanied by deformity and disability, varying in degree, but permanently impairing the earning capacity of a handworker. Operative treatment has a very low mortality, almost nil, and though final results are not always perfect, pain and circulatory disturbances are relieved. There follows a very fair restoration of function.

In elderly people, forcible attempts at reduction of old shoulder dislocations has fractured the humerus. Atrophy, adhesions of the surrounding muscles and soft parts and adhesions of the torn joint-capsule, all these tend to make, at times, reduction by manipulation difficult, impossible, or extremely dangerous.

Do not resort to a cutting operation unless you are convinced of the futility of further use of non-operative procedures. In the young, reduction is more easily affected, presents less difficulty than in adults, and bloody intervention is rarely justified.

The incision giving access to the articulation may be made along the posterior or the anterior axillary fold. All cicatricial bands impeding reduction are cut, muscles preventing reduction are divided and subsequently sutured. The head of the bone being replaced into the joint-capsule, the latter is closed as completely as possible.

The prognosis in bilateral shoulder dislocation is influenced by many factors, chief among which should be mentioned age of the patient and of the dislocation, the patient's occupation, the associated injuries and the treatment instituted. As a rule, the older the patient the longer the period required for recovery. As to the age of the luxation, it is agreed that dislocations call for immediate reduction. Sequelæ are thereby forestalled; nothing is gained by delay. Convalescence is longer in handworkers than in intellectuals; delicate hand movements are late in returning. Associated injuries require appropriate treatment. In some cases full function is not restored before the detached muscles or tuberosities are permanently fixed in their normal place.

Bloodless manipulative methods, supplemented by electro-mechano- and hydro-therapy, give the best results. The two dislocations, right and left, are reduced separately, usually by the same method and at the same sitting. The duration of immobilization varies in different cases: 12 days, 5 weeks etc. We are of the opinion that most clinicians err in prolonging complete mobilization beyond two weeks. About the tenth day gentle passive motion and massage and electrical treatment should be instituted.

After an arthrotomy and division of extensive adhesions, even though the bone is replaced to its normal position, some joint-stiffness is to be expected. This is generally compensated for by a movable scapula. The restoration of the rotundity of the shoulder and the absolute relief of pain give much satisfaction to the patient.

After reduction of the dislocations both shoulders are immobilized, wedge-shaped pads placed in the axilla, the arms fixed in front of the chest by adhesive plaster, bandages, etc. The patient is practically helpless; he cannot feed himself, he cannot dress himself, he cannot attend to many of his other needs; he must be provided with an attendant until recovery is effected.

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"A CASE OF STRANGULATED INDIRECT INGUINAL HERNIA IN INFANT TWO MONTHS OLD—OPERATED"

By ALBERT G. RUTHERFORD, M. D.
Welch Hospital No. 1
Welch, West Virginia

Baby C. C., referred to Welch Hospital No. 1, June 17th, 1924, at 7:30 P. M. The history obtained from the mother was as follows:

"At eight o'clock that morning, the mother first noticed a lump in infant's scrotum in right side. Since that time patient had not had any bowel movement. He vomited about four times before admission to hospital. Mother gave infant a small dose of castor oil early in the afternoon but without any bowel movement."

The physical findings were as follows: "Well developed, well nourished, breast fed, white male infant two months old. Patient appeared toxic, cried at intervals and then would sink back into a semi-comatose condition. His temperature, upon admission, was 102, pulse rapid—unable to be counted. Physical examination was otherwise negative except for the local condition in the scrotum.

Upon examination of right inguinal region, one would make out a large hard tender mass which extended from the external ring down into and filling the right side of the scrotum. Both testicles could be readily palpated in the scrotum. The tumor extended down to the right testis. Tumor was hard and directly continuous with external ring. No fluctuation was elicited. Attempts at taxis were without result.

Pre-operative diagnosis: Irreducible complete indirect inguinal hernia, right side, with symptoms of acute obstruction.

Operation—local, novocain. The usual hernia incision was made, extending from a point one and one-half inches from and one inch below anterior superoir spine to the base of the penis. This incision immediately exposed the tumor mass which proved to be a sac filled with a discolored intestine. Sac extended down to right testicle. It was impossible to reduce contents of sac until the constriction, which proved to be the external ring, was divided. The gut was then slipped back into the abdominal cavity. The sac was ligated high up and removed. The usual plastic operation was completed. The infant was returned to the ward in grave condition.

Progress: The child's bowels moved three hours after operation. About twelve hours after operation, patient was given colonic irrigations which returned effectuam. Progress of patient was uneventful from that time until time discharged from hospital, nine days after admission, with complete healing of wound and return to normal.

This case is interesting from the standpoint of the age of the infant, and also from the standpoint of what can be accomplished in infants suffering from obstruction, by surgical procedure.

SOME EXPERIENCES WITH COCAINIZATION OF THE NASAL GANGLION

By HAROLD C. MILLER, M. D.
Eglon, W. Va.

Read Before the Barbour-Randolph-Tucker County Medical Society at Davis, July 19th, 1924.

This is not a scientific treatise on a special subject for specialists. It

is merely the testimony of a general practitioner for a specialist's method which on occasion may be added with profit to the overworked armamentarium of the general practitioner. Therefore I can be mercifully brief.

Sluder has from time to time reported the success of his treatment of the nasal ganglion in such an array of conditions as to demand more than passing notice: "lower half" headache, glossodynia, cricodynia, otalgia, mastoid neuralgia, trigeminal neuralgia in lower jaw, post extraction pain in lower jaw, nausea and vertigo of post-nasal origin, scrotoma, photophobia, painful spasm of ciliary muscle, pain of corneal irritation or ulceration, rhinorrhea, parageusia, and some asthmas. It should be understood that most of these symptoms are referred from lesions in the vicinity of the nasal ganglion and the sphenoid sinus, and unless so referred, treatment of the nasal ganglion fails. The pain of otitis media, mastoidalgia, cricodynia, and the control of post-extraction pain in lower jaw are remarkable exceptions, however. And it is with these exceptions that the method in my hands has yielded the most striking results.

A blacksmith, on the day following the extraction of a lower right molar, complained bitterly of pain in the socket when working at the forge. The right nasal ganglion was cocainized once and the patient went back to work with complete and permanent relief. Since then several similar cases have been similarly relieved, and at least one case of toothache in lower jaw was relieved for several hours by the same method.

A young woman complaining of severe pain in the right mastoid. No fever nor leucocytosis. Pain resisted the usual anodynes and was so severe as to prevent sleep. One cocainization of right nasal ganglion relieved completely, but pain returned in three days. Two subsequent applications terminated this attack. The same patient had a recurrence of the condition more than one year later. Two cocainizations brought complete relief.

Another young woman who suffered severely with a double purulent otitis media with severe mastoid pain, presented herself a year later with recurrence of otalgia and mastoidalgia. Slight elevation of temperature but no signs of pus or inflammation behind tympanic membrane. Right otalgia most severe. Right nasal ganglion cocainized with control of pain on that side and sleep following night. Left nasal ganglion cocainized on following day with relief on left side. Each ganglion was cocainized on alternate days until each had received three treatments with slow and complete recovery. Pain in several other cases of otalgia controlled, in some instances permanently following one treatment.

A young man whose chief complaint was vertigo following a recent cold. The attacks of vertigo so severe as to prevent work. Pain about left eye and in left ear, occipital headache. No signs of inflammation in tympanium. No mastoid tenderness which seems to rule this case out as one of lower half headache, since, according to Sluder, there is always a tender point back of the mastoid on the affected side. Considerable inflammation of the upper pharnyx. One cocainization

of left nasal ganglion gave immediate relief of vertigo and otalgia. Patient had a good night's sleep but the symptoms returned somewhat in about twelve hours. After eighteen hours another treatment gave complete and permanent relief.

Technique demands a consideration of anatomy. The nasal, sphenopalatine, or Meckel's ganglion, is deeply placed in the spheno-maxillary fossa, close to the sphenopalatine foramen. In turn, the spheno-palatine foramen is located at a point just posterior to and immediately above the posterior tip of the middle turbinate. This then is the point to which the cocain is supplied. Twenty to fifty percent solutions of cocain are recommended. The general practitioner should use the weaker solutions at least until his skill in reaching the point of application precludes the scattering of the solution over the nasal fossa. I have used the weaker solutions with adrenalin and chloretone, and have not had the slightest signs of cocaine poisoning. A cotton tipped nasal applicator moistened with this solution is passed along the middle fossa keeping close to the outer wall of the nasal cavity. When it comes to the posterior tip of the middle turbinate it drops laterally into a depression over the sphenopalatine foramen and the nasal ganglion. Allow the applicator to rest in this position for several minutes and if the point of application remains sensitive another applicator moistened with the solution should be applied. Relief of the referred pain is as rapid as the action of the cocaine. I usually conclude the treatment with an application of mercurochrome and an oil spray.

The rationality of the procedure can be partly judged from a consideration of the nerve connections of the nasal ganglion. Its sensory root is derived from the superior maxillary nerve. The motor root is derived from the facial nerve entering the ganglion as the vidian. The sympathetic root passes to the ganglion from the carotid plexus. The branches of distribution are in four groups: ascending to the orbit, descending to the palate, internal to the nose and posterior to the nasal pharynx. The ganglion is also in very close relations with the sphenoid sinus. This position and the wide distribution of its branches helps us to at least partly understand that there are numerous points which may be irritated and cause symptoms either locally or reflexly at some distant point. But as already intimated a few clinical results have been obtained which are not explained by our present knowledge of the anatomy and physiology of these connections. These points need further study and investigation.

But whatever the future may hold for the method it has already yielded sufficiently promising results to merit its continued application in conditions which are otherwise difficult to understand and more difficult to treat. It affords immediate and sometimes spectacular relief without drugging. The patient feels that he is being treated, and not as a pill bottle. On the other hand since the majority of symptoms to be relieved by this treatment are due to various post-nasal lesions the underlying pathology should receive all the attention it deserves, if not at the hands of the general practitioner then at the

hands of the specialist. This is especially true where cocainization affords but temporary relief but with no improvement in the underlying condition. These cases can be well treated by the specialist who can inject the ganglion to give relief while he treats the causal lesions.

ANNOUNCEMENTS AND COMMUNICATIONS

PROBLEM OF THE MEDICAL DEPARTMENT IN THE DEVELOPMENT OF AN ADEQUATE RESERVE CORPS.

By G. I. JONES, M. D.
Major, Medical Corps, U. S. Army
Chief, Section on Reserve Officers,
Surgeon General's Office
Washington, D. C.

It is the purpose of the War Department to develop a Reserve organization which will place the Army of the United States on a footing fully capable of meeting any major national emergency.

The problem of the Medical Department is a tremendous one and can only be successfully solved by the cooperative efforts of all members of the medical and allied professions.

Enrollment in the Reserve in time of peace accomplishes a very large part of the preparation for emergencies, since it immediately establishes identity of the individuals of the profession with the military establishment and enables the proper classification and assignment to units of individuals, which will insure the application of their talents, as demonstrated in civil life, to a position in the Army in a similar capacity. Further, failure to establish identity with the Reserve Corps in time of peace causes a tremendous administrative burden when emergency occurs in an effort to secure the appointment and assignment to duty of individuals. It is not the intention of the War Department to impose involuntary training or any irksome duty on members of the profession which will disturb the tranquility of their civilian pursuits in time of peace.

It is obvious that appointment in the Reserve in time of peace will at once permit the development of organizations, and it is further evident that development in time of peace of organizations makes possible a more careful study of the military potentialities of physicians in completing assignments thereto (hence the assurance of greater organization efficiency and harmony of operation). It also removes the delay and annoyance of gathering individuals of unknown professional and military merit together in the formation of units after the declaration of an emergency. It was this lack of knowledge of the special talents of individuals and the absence of a developed Reserve, coupled with the urgent necessity for speedy mobilization and organization, which was largely responsible for the relative inequalities which developed during the World War. A survey of the situation convincingly discloses the administrative impossibility of adequately adjusting the differences in grade which our response to the urgency of war created. The new Reserve cannot be harmoniously constructed on a basis which will assure military efficiency and preclude the insinuation of the same difficulties, if a different rule is applied in con-

sidering the grade of each applicant.

The Surgeon General, having in mind the desire of the medical profession to support the medical program for national defense, has, after the experience of the World War and the period thereafter, made a thorough study of the conditions, with the final adoption of the policy defined in the letter of the Adjutant General, November 17, 1923. The rules determining eligibility for appointment and promotion are believed to be just and fair to all applicants and provide for a smooth flow of promotion in time of peace conducive to the development of proper distribution of officers in grade, which assures efficiency in the development of organizations.

It is desired that all former officers give their support to the Reserve Corps by seeking enrollment therein, and that having in mind the perpetuation of an adequate Reserve they encourage recent graduates in medicine to enroll therein as soon as they become eligible after graduation.

The idea will be attained in the organization of the Reserve in time of peace if all eligible graduates seek appointment therein. This will eliminate all possibility of dissatisfaction as to grade tendered, in that contemporaries in civil life will be placed on an equal footing in the Reserve Corps, securing promotion to higher grades after fixed periods of time (if found qualified). The scheme of promotion now existing makes possible the advancement of officers of the Reserve Corps to the next higher grade after each five-year period, without examination, if the progress of the applicant in his professional activities warrants.

INVITATION TO AMERICAN PHYSICIANS

The Inter-State Post Graduate Assembly, directed by the Tri-State District Medical Association, extends a hearty invitation to the physicians of America who are in good standing in their State or Provincial Societies to attend the annual assembly, which is to be held at Milwaukee, Wisconsin, October 27th, 28th, 29th, 30th and 31st, five full days of post graduate work.

This Association is supervising an Inter-State Post Graduate Clinic Tour to Canada, British Isles and France to start May 18, 1925. Leading teachers and clinicians of Canada and Europe will arrange and conduct clinics and demonstrations in the following clinic cities:

Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glascow, Scotland; Dublin and Belfast, Ireland; Paris, Lyon and Strasburg, France.

Besides the main tour, special tours to practically all the leading centers of Europe will be arranged. Sight-seeing trips to all places of interest in the countries visited will be included in the regular tour.

Cost of tour, including first-class hotels, board, steamship, clinic arrangements and all ordinary traveling expenses, under $1000.00.

The tour is open to physicians in good standing in their State Societies, their families and friends who are not physicians.

For information, write the Managing-Director, William B. Peck, Freeport, Illinois.

THE WEST VIRGINIA MEDICAL JOURNAL

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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WHERE ARE THE OLD TIMERS?

Nature has decreed that her beauties shall be renewed once each year to stimulate the senses of those who think life is worth while. The music of the song bird will arouse us early in the morning that our eyes may feast upon the flowers of spring-time, and fields and meadows of autumns, when the odor of ripening grain and fruits makes us dream of the aroma of old wines when they were lawful.

When a minister has preached for years, and grown in the grace of the Lord and knowledge that comes with mature years, he is made a bishop, whereby thousands are enthused by coming in contact with, hearing and reading his sermons and theological expositions.

Great lawyers are made judges whose interpretations of the laws and opinions set precedents by which we are governed for generations to come.

Equally beneficial to all humanity would be the mature knowledge and experience of the old physician, if it were only in like manner dis-

seminated. The higher education of the young doctors today is only a foundation and he needs the human touch and demonstrated truths and experience of his predecessors, who, with less education, but with much common sense and judgment and courage of their convictions have made the medical profession what it is today. Any doctor who has practiced for twenty or more years, no matter how remote his locality or how limited his education, has had experiences which would benefit every other doctor in West Virginia, if he would only relate and make public the same, in his own manner and language.

The writer has been a fairly constant attendant, although not an active participant in the proceedings, to the West Virginia Medical Association for many years, and, at each session, many new ideas were obtained and we have been inspired to greater efforts and accomplishments.

For several years past we have noticed with regret the absence of many of our old friends who have formerly given of their time and talents in promoting the welfare and success of our society. That a man has been president of the association is self evident that his professional attainments were above the average, and the influence of his presence meant much to the younger men.

We are now entering upon a new era and cannot afford to fail or fall behind if we are to make the association bigger and the Journal better. We need, and must have, the help and influence of every ex-president.

Will you not talk with non-members and induce them to join your county society and encourage the younger men of the profession by giving us a letter, article, or case report, through the the Journal?

Join in with us and help improve the Journal; help each other and thereby help the public.

The meeting at Bluefield next year would be a fine place and time to have a reunion of ex-presidents. Come and see what your boys have been doing and inspire them to do more.—C. A. R.

FAKE DOCTORS

We physicians in West Virginia have been having a merry time for several years with the question of the so-called "Quacks." None of us are likely to soon forget the last meeting of the Legislature. This last session will be tame compared to the next one, unless we are much mistaken, when laws governing the practice of the healing art come up for discussion.

Sometimes a lay magazine takes up in an impartial way the most important questions and handles them fearlessly and without gloves. When this happens it is but fitting that due credit be given them.

The whole medical profession owes a unanimous vote of appreciation and thanks to the Ladies' Home Journal for the publication in the July and August issues for this year of two articles by Frederic F. Van De Water.

In these articles a layman has proceeded to give to his fellow laymen the most wholesomely sound advice along the lines of how to diagnose Fake Doctors that it has been our privilege to read.

The first two paragraphs of the first article are classics in the succinct manner in which they sum up

the whole question of Quackery. These two paragraphs should be read immediately by every licensed physician.

The articles are intensely interesting not only to the laity but to physicians as well. Under the subheadings of "Slaughter" and "Cure All Quacks," numerous citations of cases in illustration of the ignorance of the practitioners of illegal medicine are given which astound the reader. Then comes an interesting account of the expose of the "diploma mills" in Missouri. This is particularly illuminating as we are informed that not only were degrees in medicine sold, but also those of pharmacy and Doctor of Divinity.

His discussion of "The Mythical Doctors Trust" should be read by all citizens, for its convincing argument is a plain and straightforward statement as to just what this is.

We physicians do not escape criticism altogether for it is shown that we are too ethical in that we do not carry on a campaign of education for the public that they may thoroughly understand the attitude of physicians toward all health matters.

We are going to endeavor to secure reprints of these articles and see that all of our patients get copies. It would be a good idea if a supply should be on hands to be given to patients while waiting in our reception rooms and taken home by them. Certainly each member of the Legislature should have a copy before the meeting of that body in Charleston. They will have time to read it then, but not after the session opens.

It is a golden opportunity for us to educate the people. Since the articles are by a layman and not a physician, they will be read with a far more open mind.

HAVE YOU JOINED THE RED CROSS?

The Eighth Annual Roll Call of the American Red Cross will be held this year from Armistice Day to Thanksgiving—November 11 to 27. Your support is asked for Disaster Relief work, work for the disabled ex-service men, Public Health nursing, First Aid and Life-Saving, the Nutrition Service and courses in Home Hygiene and Care of the Sick which are given to women and girls throughout the country.

The Roll Coll is not a drive. You are not asked to give; you are asked to pay a dollar for membership in the organization for the coming year. It is with these dollars that the Red Cross carries on the various activities for which it is chartered by Congress.

Remember, the Red Cross is YOUR Red Cross; it works for you and you are a part of it. If you believe in the ideal of service for which the Red Cross stands, if you wish to do your share to help the suffering and to fight preventable disease, you will not fail to join.

ENTERS THE "NEUROCALOMETER"

Probably most of those who have made a study of quackery and pseudomedicine have reached the conclusion that charlantry of the mechanico-electrical type had reached its apotheosis in Abrams' fantastic pieces of apparatus. But chiropractic has gone the E. R. A. one better, and presents to a palpitating world the "Neurocalometer" — a measurer of nerve heat! This mar-

vel, as is fitting, emanates from the Fountain Head of Chiropractic—the Palmer School of Chiropractic, Davenport, Iowa. Chiropractors are being circularized, their interest whetted, and they are urged to send in their orders early. The description given of the device is rather hazy, but the Neurocalometer appears to be essentially a thermopile or possibly two thermopiles, one in each arm of the instrument. The two arms are, apparently, separated sufficiently to allow them to "straddle" the vertebral column. From the thermopile run wires which carry the weak electric current (always generated when a thermopile is subjected to differences in temperature) to a galvanometer. The latter, presumably, can be brought around so that the victim can see the pointer move over the dial. When the pointer stands at zero, it indicates a perfectly normal spinal column; when it swings to the right or left it is registering a "subluxation"! The economic possibilities of this device are surely unlimited. The thermopile part of the instrument is said to be made at the Palmer School of Chiropractic. Like Abrams' "Oscilloclast," the Neurocalometer cannot be purchased; it can only be leased. Like the Oscilloclast, too, it is sealed and the lessee signs a contract not to break or tamper with the seals. The "established price" of a lease of the Neurocalometer is $2,200—$1,000 cash at the time the contract is made and $10 a month for ten years. This makes Abrams' disciples look like pikers. As a special "introductory price," operative until July 1, 1924, these instruments will be leased for $1,200, in which $600 cash must be paid at the time of signing the contract and $5 a month paid for a period of ten years. After July 1, 1924, it will be $750 cash and $6.25 a month for ten years. There are numerous restrictions imposed on those who would lease this device, of which the least onerous is that requiring the lessee to charge his patient $10 for a Neurocalometer reading. It is necessary for the would-be lessee to declare what degree he holds, from what school or schools he graduated, and whether his degrees and graduation were from "residential or "correspondence" courses. No other college of chiropractic will be able to lease a Neurocalometer for class instruction, and, as a further means of boosting attendance at the Palmer "school," those who are considering taking up chiropractic as a trade are told that if they matriculate or enroll in any school except the Palmer School on or after Sept. 1, 1924, they will not be eligible to lease a Neurocalometer. The Palmer School of Chiropractic says that while the Neurocalometer "will not give electronic reactions of syphilis from the blood of a chicken," it "proves hot boxes." Altogether, the Neurocalometer should come up to the fondest expectations of its sponsors. It will be a great business getter for the Palmer School of Chiropractic; it will bring in a handsome income to that institution and to the chiropractors that rent the device. And the ever gullible public will pay the bill.—Ed., Jour. A. M. A., July 12, 1924.

STATE AND GENERAL NEWS

BARBOUR-RANDOLPH-TUCKER NOTES

J. C. IRONS, Reporter

Dr. C. B. Williams and wife of Philippi are taking a two weeks' vacation at Atlantic City. Dr. Williams is one of our most progressive health officers. He was largely the means of a full time child health nurse,—and is rightly credited with the securing of Miss Mayo, who is doing a great and most arduous work in Barbour County.

Dr. John T. Huff, of Parsons, has recently passed his ninety-first birthday. He has been, until quite recently, active in practice. He entered the Confederate service soon after graduating in medicine, and was at Philippi when one of the first battles of the Confederacy was fought, the Confederate forces being in the town of Philippi when the Federal forces appeared on the hill overlooking the town, near where Broadus College is now located. The Confederates were defeated. Captain Dangerfield was shot through the knee, and sent to Beverly, then the county seat of Randolph county. Dr. Huff was detailed to attend the captain, who was taken to the Logan home in Beverly. Unfortunately Dr. Huff had lost his surgical instruments and when he decided that amputation was necessary he had no tools. He secured a pocket knife and tenant saw, and performed the first major surgery of the war. The operation was successful and Captain Dangerfield died only a few years ago, near Romney, W. Va. Dr. Huff still has the knife and saw. When we think that this was before aspetic surgery was known, we wonder how the surgery of that day was as successful as it appeared to be.

The following is clipped from the Randolph Review of August 7th: Rapid progress is being made on the addition to the Elkins City Hospital, work on five stories having virtually been completed.

When the addition is completed facilities for handling hospital cases will be materially increased, and accommodations more than doubled. At the same time equipment to be installed will make the hospital one of the best equipped in the State, and will give it front rank, especially under the supervision of Dr. A. P. Butt and his associates.

MARION COUNTY NOTES

CLAUDE L. HOLLAND, Reporter

Dr. and Mrs. Orville Howard motored from their home at Uniontown, Pa., to be the week-end guests of the former's brother, Dr. L. D. Howard, and Mrs. Howard at their home in Madison street.

Dr. Hugh Carr of Fairmont, who recently underwent an operation at the Johns Hopkins hospital, is now at the home of his father, Dr. Logan Carr in Baltimore. Dr. Carr is recovering from his operation and is doing nicely.

Dr. W. C. Ogden, of Fairmont, who has been in a Baltimore hospital for several weeks, and who was thought to be improving, is now in a serious condition. His relatives here have been notified that he is now ill with pneumonia. His brother, Herschel C. Ogden, of Wheeling, and his sister, Mrs. W. H. Spragg, of Washington, D. C., and

his sister-in-law, Mrs. Howard N. Ogden, of Chicago, spent several weeks in Baltimore with him.

Dr. and Mrs. James A. Reidy have gone to Atlantic City, where they will spend a vacation of about two weeks. On their return, they will stop at Mrs. Reidy's home in Preston, Md., and at Dr. Reidy's home in Allentown, Pa. During their absence, Miss Inez Noble of Preston, Md., is visiting the Reidy home in Maple avenue. Dr. L. S. Smith is taking care of Dr. Reidy's practice while he is absent.

Dr. E. F. Shepherd of Fairmont Hospital No. 3 has been called to his home at Pulaski, Va., because of the illness of his father. Upon his arrival he and other surgeons had Mr. Shepherd removed to the hospital where an operation was performed. He is in a crtical condition.

Dr. and Mrs. Claude L. Holland and son Eugene and daughter Miss Mary Edith Holland returned recently from a ten days trip to Atlantic City. They made the trip by automobile and visited various eastern points. Dr. Holland stopped in Morgantown for the joint meeting of the Marion County Medical Society and the Monongalia County Medical Society.

According to an order from the War Department received in Fairmont, Captain James B. Clinton, medical officer of the Officers Reserve Corps, has been promoted to the rank of Major. Major Clinton is a well known Fairmont physician. During the World War he served first with the English army and later, when the United States entered the war, with his home troops. He has been an active member of the Reserve since his return from France and has done much to promote the organization in West Virginia.

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A two-hour lecture on "The Modern Treatment of Diabetes," by Dr. M. A. Blankenhorn of the Lakeside Hospital, Cleveland, Ohio, was heard by sixteen Fairmont physicians meeting in the Y. M. C. A. for the medical course and clinic being conducted in this city during the summer by the extension division of West Virginia University.

Following a lecture, a short session open for questions or answers pertaining to the disease which formed the subject of the lecture was held. Dr. Blankenhorn answered questions relative to local cases of diabetes, and during the discussion it was brought out that out of a total number of 641 deaths in Marion county last year, 31 resulted from diabetes, according to a statement made by Dr. L. N. Yost, county health officer. About 25 active cases of the disease were reported by the physicians present.

In his opening statement, Dr. Blankenhorn stated that in dealing with the study of diabetes, physicians are concerned with a disease of which they do not know the cause. But, although they have no specific treatment, still they have gone far in correcting it. A number of important discoveries concerning the disease have been made, he said, and he named the fact that the relation of this disease to the pancreas has been determined; that the possibility of studying the blood sugar was a second step; the third was the discovery of the under-nutrition treatment, and the last and greatest is the discovery of the drug insulin. "There is no definite treat-

ment for diabetes," said Dr. Blankenhorn. "It is just a matter of management."

He next divided diabetes patients into the following category of stages, starting with obesity, then telling of incipient patients, mild diabetes coming next, then the severe cases, and lastly the fatal diabetes cases. He went into detail by means of lecture and blackboard diagraming.

The incipient diabetes patient, according to Dr. Blankenhorn, is the one who has or is going to have sugar in the urine. Obesity, he said, is produced by over-eating, especially of the rich carbohydrates. "Civilization has gone ahead of digestion," Dr. Blankenhorn claimed. "With the increase per capita of cane sugar comes the increase in diabetes cases. During the war, when cane sugar was very scarce, the prevalence of diabetes dropped one-third in the United States. And with the return of prosperity it is again on the increase, the list of diabetes patients growing daily."

Dr. Blankenhorn stated that the control of this disease is a vital problem to the nation, and that if doctors are able to at least control incipient diabetic patients and obese individuals, in other words those in the first stages, they will have done a great work. He said that doctors are constantly amazed at the way modern day folk abuse their digestive systems.

In discussing the treatment of severe diabetes cases, Dr. Blankenhorn spoke of the drug in frequent medical use, insulin.

"The fatal cases, those in acidosis or actually in coma, until the discovery of insulin doctors merely stayed with until the end and then signed their death certificate," Dr. Blankenhorn said. "In fact that was about all they could do. Now there is no reason why an uncomplicated coma case should die unless an overdose of insulin is given."

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Dr. M. A. Blankenhorn of Lakeside Hospital, Cleveland, Ohio, who last Tuesday spoke to local doctors on the subject of "The Modern Treatment of Diabetes," today addressed Fairmont physicians on "Focal Infections."

A brief clinic preceded the address, in line with the medical course and clinic sessions which are conducted at this hour every Tuesday during the summer by the extension division of West Virginia University for the benefit of local practitioners. Thirteen physicians were in attendance, including Dr. Charles McElfresh, specialist of Baltimore, Md., who is visiting in the city.

Speaking of the term "focal infection," Dr. Blankenhorn said in his opening statement that physicians working with such cases are dealing with a theory not incapable of being demonstrated, but one which has not yet been demonstrated, and, therefore, must be based upon analogy.

Dr. Blankenhorn explained that he chose this subject as his topic because the theory of focal infection has been ridden to death by numbers of doctors. A theory that may gather in so many different ailments under one heading is a dangerous one, he declared. Tooth extractions and the removal of tonsils, based upon this cause are too numerous, he said, to have a firm basis always.

The removal of tonsils among children suffering from acute rheumatic fever is not an entire success in curing the disease, he explained. After the disease has once become chronic, no good whatsoever can result from extractions or removal of tonsils, he stated.

In gastric fever, appendicitis and gall stone diseases, the relation of focal infection is very remote, said Dr. Blankenhorn. "When teeth and tonsils have been done away with, physicians often resort to the removal of the gall bladder upon a sort of bet," he said, and added this does little, if any, good.

When an obscure illness and doubtful teeth in the patient confront a physician, Dr. Blankenhorn advised the removal of the teeth if possible, urging always the extraction of abscessed teeth. "I am opposed to saving teeth with pus," he said, "but I do not uphold the idea of removing devitalized or denerved teeth, as that is taking the matter too far."

The question of harm resulting from the extraction of teeth was then dealt with. Dr. Blankenhorn claimed that in many cases there is no harm done, but that extractions are harmful to some individuals, especially late in life, causing senility far in advance of its time.

In concluding, Dr. Blankenhorn insisted that his motive in dealing with the the topic of focal infection was not to discourage the aid of such evidence, but to urge practitioners not to substitute the short cut method for a wise investigation of the case.

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Dr. H. L. Horton, of Richmond, Va., has opened an office in rooms in the Fairmont Theater Building, it was announced this morning. Dr. Horton expects to do general practice work, specializing in diagnosis.

Attending the University of North Carolina, Dr. Horton was graduated from the Virginia Medical College in Richmond. He served his interneship in the Stuart Circle Hospital. He spent some time in the state laboratory of hygiene in Roy, N. C. Before coming here he completed nine months of post graduate work.

Dr. and Mrs. Horton will make their home in apartments in rear of his office.

OHIO COUNTY NEWS

HARRY M. HALL, Reporter

In the June Journal an account was given of the little difficulty that arose between the Executive Committee and the C. V. Mosby Company of St. Louis. They felt they had been charged exorbitantly. Since then we have a letter from Mr. Mosby stating that he had had sinus trouble, and a few things had been overlooked, among them the fact that he had a circular letter stating the prices before he wired for a booth, in view of which he was enclosing his check for the balance, and hoped the matter would be closed. It is well to add that we had an expensive place to meet in and the booths were all erected. Like good automobiles, good expositions cost money. The two salesmen who represented this concern in Wheeling were well liked, as you will remember, and made many friends. No better salesman than the genial "old timer" was to be found in the building. For everybody's sake we are glad it will be for them "business as usual."

In keeping a line on doctors going on and coming from vacations, it is simply a sort of rubber stamp affair up here. Canada is the objective point,—all of them say it is fishing. We should like statistics on how many various occupations and amusements are covered by the term "FISHING." In the medical world a great deal is, blamed on syphilis—in adding up expense accounts, "miscellaneous" is a favorite word—in costs the celebrated word "overhead" is often found—but "FISHING" covers more than any word I can think of. There's Drinkhard, just back from Canada "fishing." You well know a good trout would carry Drinkhard" right along with him. Dr. Coyle, the oculist, has just returned too. He would be dangerous to make "fish eyes" at. Then J. P. Cole had to go up to take Coyle's place. If he tells his favorite stories up there the natives may get nothing done with the fall wheat, and from the present price of it, I hope he doesn't interfere too much. Dr. Gilmore also goes to Minnesota, and may cross the border.

Dr. M. B. Williams has a new Hudson car, and Dr. Cracraft having returned from White Sulphur Springs, the "call of the road" beckoned, and he is again out riding in his native State.

Dr. Roberts of the Wheeling Clinic wore a blister on his foot, even as you and I — and, Doctor like, he didn't pay a whole lot of attention to it, even as you and I. Result, he had a very serious infection which laid him up in the Ohio Valley General for over a week. One thing more to make this a humane document—he got up on it and went home to Moundsville within the LIMIT, even as you and I.

Dr. Geo. Viewig has moved his offices into the new Citizens Mutual Bank Bldg., and he has a new assistant in the person of Dr. W. F. Dixon, from Carbondale, Pa., with him.

North Wheeling Hospital has its new internes. They are, Dr. Talbot, University of Maryland, Dr. MacGahan, University of Maryland, Dr. Gibson, University of Cincinnati, Dr. Lukens—summer only—is a fourth year man, University of Pennsylvania.

Dr. MacGahan also has a little interne in his home. The big boy was born last week in the North Wheeling Hospital.

The Ohio Valley General has its new internes also. They are: Dr. A. J. Holm, Jefferson College, Dr. F. L. Knight, University of Virginia, and Dr. P. M. Scott, Jefferson College.

About the time the internes arrive one hears the impression they are making. From what this reporter has heard the impressions made by all of these gentlemen have been very satisfactory. So much depends on these men that we hope when they all leave next year comment of THE SAME KIND WILL BE HEARD.

July 1st saw the departures of Drs. Herman, Tigheman and Prather from the Ohio Valley General. During the year they ran their courses with as little criticism as we believe it is possible to go "round the track." This reporter was an interne two years and he hasn't yet lost some of their viewpoint. At one time we read of a lot of men around a table voting on what was

the most like a "yellow dog job." An interne in a hospital won the prize. Since then the position has advanced from a "free from pay" occupation to one of pecuniary reward and authority. Of course we have never since known as much medicine and surgery as we did during those two years we were so occupied, but it is our goal to do it in another ten years. Still these three men said they had been treated fairly, liked their work and were sorry to go. As far as we have observed there has been a remarkably better understanding lately between visiting men and internes. The fault was FORMERLY A MATTER OF TWO SIDES.

Dr. E. L. Ambrecht goes to Rochester, N. Y., next week, where he has a son Robert, who is an interne there. Dr. Edward, his oldest son, has served his interneship in a Philadelphia hospital as a dentist. The Doctor specializes on tumors of the teeth, fractures of the jaw, difficult extraction and the like.

Dr. Harry Silver left on his vacation today.

Dr. Howells is on a vacation a good part of his time. It is a peculiar vacation in that it consists in bringing before the American public a Welch tenor, Reese Morgan. Dr. Howells is one of the most prominent Welchmen in America, and was one of the principals in Lloyd George's visit here. You will hear a whole lot about this tenor some day. Howells is his angel.

Mrs. John Marschner was operated upon at the North Wheeling Hospital recently for appendicitis. Doctors Bippus and Armbrecht performed the operation. I mention this latter fact because they were not at all sure of the diagnosis, it being obscure, and the white count not especially high. But they are both of the Deever type of surgeons who can sort of sense things. It was certainly well they did, for it turned out to be one that ought to come out at once.

Dr. Groom's writing in the August Journal speaks of "family preferring to wait." I have taken it upon myself recently to tell people that doctors do not as a rule "wait" in their families. The other day I told a man this who had no symptoms but a white count of 18,000. I had two other men in to see him. He positively did not have any pain, vomiting or rigidity, yet I told him doctors do not wait in their own families, nor did nurses. His appendix was gangrenous on removal.

In looking about I recall Mrs. Dr. Williams, Dr. Cracraft's son, Dr. Fawcett himself, the above case of Mrs. Marschner, and many others, including the writer's own wife and daughter. The comic papers, irregular practitioners and many thoughtless people make sport of doctors ordering inoffensive appendices out. You and I know there is no way of being sure, and we back that up by taking no chances in our families, which ought to clear us at once of hurrying for material reasons.

The Wheeling Clinic has been in operation since July 1st. In making a few remarks about this project we want it strictly understood that the writer is no hero worshiper. Because we were taken through and courteously shown about we are not going to color up our descriptions and make it look like it will be necessary now for all other doctors to cease work except in very minor cases. The writer prop-

erly belongs in that group who is going to have to find some way of competing with this mode of practicing medicine. He hasn't any doubt but the group he belongs to will do it, but, like the other members, he welcomes the fact it sets a lively pace that will merely try the mettle of all of us to keep abreast. He thinks it can be done, and has so informed Dr. Fulton But it is certainly a matter of news to every doctor in this state to know of the existence of this clinic and what it really is in existence to fill. As far as this idea of having a clinic is one building is concerned, whether you believe it or not, it is certainly a matter worth considering to know that perhaps this is as it stands as complete an example as (I am going to say) the world affords today. It reminds you of an ocean liner and after all that similarity will do as well as any other in carrying on the description. The captain in on the deck, and his subordinates run the project under his guidance, but just as the skipper no longer bawls out his orders, but carries them out with numerous contrivances, just so it is done here. Electricity as usual makes this clinic possible. You go in a first floor that reminds you very much of a Statler Hotel. Heavy velvets in the hangings, sumptuous furniture, pictures. The office is as big as a hotel's and includes all the "history taking" forms and cards (a huge task that is one of the heaviest tasks), cashier's desk, and all other clerical workings. Cards are run through by name and number. This card and history taking is one of the fundamentals of a clinic, and if it does not function properly, the scheme is imperfect. You go up to the second floor. Here is a very sumptuous and elaborate office in which Dr. Fulton might as well admit Mrs. Fulton has had a hand. Two corridors stretch out, one for patients and one for entrance into an elaborate system of consulting rooms, in each of which by a system all that is needed for that particular investigation is at hand. Off from it is Dr. Aikman's private office. Mrs. Aikman has not got to it yet, but she will. On up is a suite of rooms for Dr. Rankin, another for Dr. Roberts. This is one of the handiest offices we have ever seen. He can sit in his chair and practically do everything a urologist can do without so much as reaching under a strain. The laboratory is very modern and especially up to date. The X-Ray is in a room triple protected for the operator. It is needless to say it is very modern. Dr. Thornton has a complete system of rooms, as well as beds where he can keep his babies several days under observation. Dr. MacGregor has a sumptuous office. There is an especial room for his electro cardigraph. The X-Ray man has elaborate dark rooms and there is a separate room for baking paraphernalia for joint treatments. A very complete—and this is saying a good deal these days —"ear, nose and throat" suite of rooms is provided. Mueller supplied the instruments. It must be a joyful feeling the operator here has when he daily experiences working with such ingenious tools and apparatus. Another suite has a complete dental outfit for extractions, work upon oral malformations and the like.

As a sort of a crowning climax a beautiful little operating room with its own gas apparatus and

sterilizing rooms is provided. The lamp to light this is a big central one in opaque glass and is one of the most wonderful we have ever seen. Rooms for a small number of patients are to be found here, as well as a kitchenette, with a small range and a complete "Frigidare" made by the Delco people. Rooms for animals and animal experimentation are at the very top. It is too much to go into everything in this building so we will mention but a few important points. Each floor has a lavatory easily reached from above or below. The flooring is a rubber material—no noise. There are more cupboards and closets than in any similar building one sees. The architect has utilized every foot of space. An elevator similar to a skyscraper is installed. You can leave any office and go out without using the usual avenue. This is a feature most any doctor will appreciate, and merely emphasizes the detail. Signs of metal indicate all information. An electric apparatus keeps pumping in cold air and removing the impure. Any odor is quickly eliminated. No windows need to be up—therefore no outside noise. A very complete heating apparatus automatically heats and cools rooms. An incinerator burns all refuse. A clever arrangement gets rid of the ashes. The installation of electricity in the cellar looks like a high tension station. Rest rooms for nurses are tastefully arranged. The finish of the paints is light, and much elaborate woodwork and window glass abounds, separating the various offices, waiting rooms and entrances and exits. It requires some little time to make the rounds.

When you think how many doctors are represented, and all of them with a suite of rooms and waiting rooms, it becomes apparent it requires some building. It is some enterprise, and we will do Dr. Fulton credit for emphasizing this—in my sojourn with him he was remarkably free from any personal reference, but always said "we" are doing this or that. It would seem to me they are bound to have some disappointments in their idealism. The project is too big not to hit some stormy seas, but it has taken a lot of studying, a lot of digesting of plans and charts, a lot of looking over similar buildings elsewhere, and a lot of hearing experiences and failures of other similar enterprises before this was conceived. It is miraculously comcomplete. If it was a hotel it would be complete, but it goes so far beyond a hotel in trying to forestall any emergency in medicine or surgery that might arise that it inspires awe. One man of course never planned it outright. It simply couldn't be done. It is a collective masterpiece.

As Dr. Pusey has said, medicine is still a matter of taking care of the acutely sick. This Wheeling Clinic is a matter for the profession to be proud of, irrespective of how you feel about collective operation. It is going to fill a certain need, and no more. But in filling that need, here is a plant that is perfection itself—a regular Rolls Royce. It makes you envious to go through it. When I got back to my small office I felt like voting for LaFollette—but this morning it is all right. I wouldn't change places with Fulton for the world. With ten talents

goes the worry of ten talents, and the Lord knows how often my indolent nature has wanted to bury my one. Here's another thing—Fulton to be what he is necessarily has had to be in a measure possessed of a big confidence in himself. The very proportions of this venture has made him more quiet, more filled with a sense of responsibility, and has set him to see if you can make a clinic as personal as an everyday practice.

Dr. E. Lloyd Jones is his new man for Ear, Nose and Throat, from Philadelphia.

Dr. Maier, Roentgenologist, Post Graduate School, Chicago.

Dr. Keaisley, Laboratorian, State Hospital, Massachusetts.

The other day Dr. B. F. Harden dropped into Wheeling, as he often does. He has been in practice almost as long as we are years old. He does not look it. For nearly forty-four years he has been in Wellsburg as their leading medical adviser. We notice he represents a class of doctors whom we believe every community of any size possesses. You see them at medical meetings. He has ridden in the saddle, carried his own medicine, been lost in stormy nights, endured privation, saw his own loved ones go and come, had misfortunes, adversities, helped the poor, scolded the rich, and yet in a smooth, easy, dignified manner he could represent these United States at any city in the world as ambassador. It is his kind that makes us the hardy, long lived profession that we are.

ROSTER

McDowell County Medical Society

President: Harry G. Camper, M. D., Welch, W. Va.

Vice-President: H. L. Kirkpatrick, M. D., Deegans, W. Va.

Treasurer: Joseph L. Sameth, M. D., Welch, W. Va.

Secretary: Fred Ben Quincy, M. D., Panther, W. Va.

Censors: W. B. Stevens, M. D., (26), Eckman, W. Va.; A. G. Rutherford, M. D., (25), Welch, W. Va.; J. Howard Anderson, M. D., (24), Marytown, W. Va.

Delegates to the State Convention: A. G. Rutherford, M. D., Welch, W. Va.; S. A. Daniel, M. D., Welch, W. Va.

Alternates: W. L. Peck, M. D., Coalwood, W. Va.; E. Vermillion, M. D., Welch, W. Va.

The society holds its scientific and social sessions at the Welch Hospital on the second Wednesday of each month with the exception of the months of June, July and August. The hour of meeting is 7:30 P. M.

Program

September 10th: Ectopic Pregnancy—Dr. Jos. B. Livingston; Discussion—Drs. C. R. Hughes, Woolwine, Anderson.

October 8th: Puerperal Eclampsia—Dr. A. G. Rutherford; Discussion—Drs. H. G. Camper, L. E. Cox, W. B. Stephens.

November 12th: Syphilis—Dr. H. R. Evans; Discussion—Drs. G. E. Evans, Camper, Thomas, Kirkpatrick.

December 10th: Pneumonia — Dr. W. B. Stephens; Discussion—Drs. J. Howard Anderson, Williams, Lovely.

The Kessler-Hatfield Hospital, of Huntington, announces an addition to its staff in the person of Isidore I. Hirschman, M. D., F. A. C. P., formerly Resident Physician Municipal Hospital, Baltimore, Md.; Resident Physician Maryland Tuberculosis Sanatorium, Maryland; Instructor in Physicial Diagnosis, University of Maryland; Physician Johns-Hopkins Hospital, Out Patient Department; Instructor in Medicine, Johns-Hopkins Hospital; Medical Consultant Huntington State Hospital; Chest Specialist United States Veterans Bureau. This hospital is completely equipped for diagnostic work; has complete laboratory facilities, including basal metabolism, blood chemistry and polygraphic tracings and facilities for rendering pneumothorax treatment.

Dr. Geo. F. Hull of Durbin was a visitor in Huntington during the meeting of the recent Republican convention.

Dr. C. A. Ray of Charleston was also in Huntington. He came, however, to guide the feet of Democratic delegates in paths good for them to travel.

Dr. F. O. Marple of Huntington has returned from a vacation spent with his parents in Buckhannon, W. Va. He made the trip by motor. Drs. R. J. Wilkinson and C. T. Taylor of Huntington attended the Davis ceremonial in Clarksburg.

Dr. C. M. Hawes of Huntington has returned from a short vacation at Pence Springs.

Dr. A. J. Swezey, well known eye, ear, nose and throat specialist of Huntington, has returned with Mrs. Swezey from an extensive motor trip throughout the middle west. Dr. Swezey stopped at a number of famous medical clinics, spending ten days at the Mayo clinic at Rochester, Minn. He also visited Lake Itaska, Minn., the source of the Mississippi, where he spent several days on a highly successful fishing expedition.

The baby clinic held on August 6th at Wyco was a complete success from all accounts of it reaching Beckley. Over 200 babies were examined at what was the third annual clinic held there for children of the pre-school age under the auspices of the Gulf Smokeless Coal Company, the Devils Fork Coal Company and the Iroquois Coal Company, of the Winding Gulf district. The clinic was not limited to the children of the employees of these companies, and mothers brought their babies from four counties—Wyoming, Mercer, Raleigh and Fayette—that they might be examined by the specialists and receive advice as to the care of the normal and the treatment to be carried out in the defective cases.

These coal companies look diligently to the welfare of their employees and their families and are always ready to support any movement in the interest of health and happiness. When Dr. George Fordham, the physician for the companies, pointed out the benefits of a clinic where the babies could be examined by some of the best specialists of the state, they made arrangement whereby these clinics would become an annual event.

Many of the children had been examined at the previous clinics and their improvement was marked, where the parents had carried out

the instructions given them. There were also pathetic cases where no help could be given, but in the main the children were a happy healthy lot.

Among the physicians and surgeons present were Dr. A. S. Jones, ortheopedic surgeon, Huntington; Dr. W. R. Laird, general surgeon, Montgomery; Dr. O. B. Lynch, diseases of children, Beckley; Dr. B. W. Steele, health officer of Wyoming county; Dr. H. A. Grigg, internal medicine, Beckley; Dr. Charles Smith, eye, ear, nose and throat, Beckley; Dr. F. L. Banks, eye, ear, nose and throat, Mayben; Dr. G. W. Johnson, MacAlpin; Dr. Aiken, Tams; Dr. Fred Holyrod, Glen Rogers. The dental examination was in charge of Dr. Frank F. Yates and Dr. R. A. Crawford, both of Mullens. A telegram was received from Drs. Todd and Rixey of the Memorial Hospital of Princeton, stating that they had intended to be present, but were unavoidably detained.

The visiting clinicians inspected the conditions existing at Wyco and were loud in their praise of the appearance of the community and the many sanitary innovations.

Dr. George W. Dudding, 86 years old, for many years practicing physician and pharmacist of Hurricane, died June 27th at the home of his daughter, Mrs. T. J. Garrett, at Hurricane. He had been in poor health for some time suffering from general senile debility.

Dr. Dudding was one of the pioneer settlers of Putnam county. He was born in the Kanawha Valley, May 22, 1838, the son of John B. Dudding. He received his baccalaureate degree at Ohio State University and was graduated in medicine at the Medical College of Ohio, Cincinnati, in 1867.

In 1874 he married Miss Lucretia Breame Seashols, whom he survived by ten years. Since the death of Mrs. Dudding he had made his home with Mrs. Garrett. Several years ago he retired from active practice.

Dr. Dudding is survived by one brother, Edgar M. Dudding, of Huntington, and two daughters, Miss Florence Dudding and Mrs. J. T. Garrett of Hurricane.

JUDGES NAMED FOR THE MODERN HOSPITAL'S PRIZE ESSAY COMPETITION

Dr. Haven Emerson, Dr. Michael M. Davis, Jr., of New York, and Dr. Willard C. Rappleye of New Haven, Conn., have been named as members of the committee of award of The Modern Hospital's prize essay competition on "The Interrelationships of Hospital and Community."

Dr. Haven Emerson is professor of public health and preventable diseases at Columbia University, New York. He was at one time commissioner of health of New York City and during the past three or four years has made a number of community hospital and health surveys, notably in Cleveland, Ohio, San Francisco, Cal., and Louisville, Ky.

Dr. Michael M. Davis, Jr., is executive secretary of the Committee on Dispensary Development of the United Hospital Fund of New York. Dr. Davis was for a number of years director of the Boston Dis-

pensary and is the author of numerous books on hospital, dispensary and public health subjects.

Dr. Willard C. Rappleye is superintendent of New Haven Hospital, New Haven, Conn., and professor of hospital administration in the Yale University school of medicine. He was at one time director of hospitals for the University of California and later served as executive secretary of the committee on training of hospital executives.

This committee will meet, probably in New York, to consider the essays submitted, following the formal closing of the contest on November 1, 1924.

Registrations for the competition will be received at the Chicago office of The Modern Hospital up to September 15.

Further information may be obtained by addressing The Contest Editor, The Modern Hospital, 22 East Ontario Street, Chicago, Ill.

COUNTY SOCIETY REPORT

The Barbour-Randolph-Tucker County Medical Society met in Davis, W. Va., July 19th, 1924, in Allegheny Heights Hospital, the following members and visitors being present; Drs. Butt, McIntosh, Few, J. L. Miller, E. F. Moore, Lyons, Groomes, Bolton and Irons; visitors, Dr. C. S. Hoffman of Keyser, Dr. Thompson of Douglass, Dr. Caswell of Hendricks, Dr. Harold C. Miller and wife, who is a practicing physician of Eglon, W. Va., Dr. Guy N. Cromwell, assistant to Dr. Butt at Davis Hospital, Dr. H. M. Boocks, Coketon, Dr. Stemple of Aurora, and Dr. Calvert of Parsons.

Promptly at 6 P. M. the Medicos were invited to the hospital dining room, where the eighteen did ample justice to a most bounteous and excellent supper. After supper Dr. J. L. Miller presided (the supper table being cleared, and those present sitting around) and the society proceeded to follow the prepared program.

The minutes of the previous meeting having been printed in the Journal, the reading was dispesed with.

Communication from Dr. Fred R. White, of Columbus, relative to testing eyes, to overcome defects, was read. Also a communication from Dr. Maxwell with reference to some litigation relative to membership in Monongalia Society.

Dr. E. F. Moore read a carefully prepared and impressive paper on "Nicotinia—Some Observations of This Widespread Malady—Suggestions for Rational Treatment." This paper was discussed by several of those present. Some thought Dr. Moore was too extreme in his views, while all agreed that excessive use of tobacco was very injurious and might result in serious physical defects. I am sending the paper to the Journal. (I trust after our physicians read this paper they may be constrained to set a better example for the rising generation.)

Dr. Harold C. Miller read a very suggestive paper on his practical experiences on "Some Experiences With Cocainization of the Nasal Ganglia." Dr. Miller gave the anatomy of the nasal cavity and the means of relieving the many forms of suffering resulting from the diseases in the ganglia, and the prompt

relief of great suffering. Dr. Miller has promised to revise and correct the paper for the Journal. It is well worthy of reading. This paper was discussed generally.

Dr. C. S. Hoffman of Keyser, whose kindly greetings and fatherly solicitudes are always an inspiration to us, gave us a talk on what I may properly call "Conclusions from Practical Experiences," as he gave no topic. (1) He always gives Seidlitz powders by dissolving the separate salts in glasses, and having patients swallow the solutions separately, and letting the gaseous formation take place in the stomach. In this way you get best results. (2) Dr. Hoffman said he always gives one dram of a 4% solution of cocain before irrigating the stomach. In this way you will be surprised at the ease and lack of distress in introducing the stomach tube. (3) He does not wash wounds, no matter how soiled the parts, before dressing. He applies 1/1000 solution of bichloride on absorbent cotton, and he seldom ever has suppuration. (4) Value of Post Mortems was stressed by Dr. Hoffman. He mentions a number of cases he had seen in which false diagnosis had been made, and the error could not possibly have been detected only by post mortem. He doubts, yea he disbelieves, that deaths reported from so-called "acute indigestion" are really a true diagnosis. There must be some other condition or disease of some vital organ that causes the death. He mentions several cases which he might have called acute indigestion but for the truth reached by post mortem. (5) Dr. Hoffman stated that when you find nephritis in the young, better look carefully to the tonsils. Usually the removal of the tonsils will cure the disease. (6) Doctor gave his method of treating "Nose Bleed," which does not yield to other methods. First plug the posterior nares with cotton cloth, then pack solidly the anterior nares with cotton strips and let remain in situ for days.

In the discussion Dr. Miller called attention to the antidotals of cocain and morphia, the one for the other. In overdose of either one give equal quantity of the other, even to two grains. Dr. Miller said he had treated wounds without washing and with washing, and if properly done he finds the latter produces best results. Dr. Cornwell has had similar experiences. Dr. Miller uses solution of Lysol in treating wounds. He also has faith in the antiseptic properties of iodine. All denounce the use of peroxide in washing wounds as this often causes much more harm than good.

Dr. Boocks of Thomas presented some unusual cases: (1) A six months old child with imperfect genital organs—difficult at first to decide whether girl or boy, but now testicles appear, also rudimentary penis. (2) A case cited in which what was thought to be a strangulated hernia and so treated and thought reduced, but returning, on operation proved to be a testicle. (3) An unusual presentation in labor in which the rotation of occiput was backward instead of forward, resulting in a transverse face presentation which could not be delivered with forceps and had to be rotated under great difficulty. The child died, but mother did well.

Dr. Bolton reported twins in his practice, boy and girl, former

weighing 9 lbs., latter 10 lbs., which was unusual. Dr. Guy N. Cornwell read a paper based on his experience on "A Case of Oesopageal Varix—Treatment of Hemorrhage." I am sending the paper to the Journal.

Dr. F. K. Lyons asked that some action be taken to regulate the fee schedule among the Parsons physicians. The Society recommended that the members of the Society in Parsons and Hendricks meet and, if possible, fix a minimum fee schedule.

A vote of thanks was heartily extended to Dr. Butt for the supper and courtesies shown the society. Also to Dr. Harold C. Miller and wife for their presence and aid, and to Dr. Hoffman for his visit and rich store of instructions gained from experience.

The meeting then adjourned to meeting again in October at Elkins, unless the members of Barbour or Tucker should desire the meeting, Barbour to have first choice.

J. C. IRONS, Secretary.

MEDICINE AND SURGERY

EFFECTS OF IRRADIATION ON THE FORMED BLOOD ELEMENTS

For years past the fact that irradiation has a definite effect upon hemopoiesis and the blood bodies has been known and especially in leukemia this clinical observation has been utilized in treatment. As far as our observation has gone, however, up to the present, knowledge of the phenomena associated with the blood changes following exposure to X-ray and radium has not been definitely grasped. Minot and Spurling, of Boston, contribute an excellent article to the American Journal of the Medical Sciences (August, 1924) in which are given very accurate observations on the blood cytology in 42 cases of malignant disease, largely carcinomata, following irradiation. The conclusions reached by these authors may make the blood examinations of decided advantage in gauging dosage. This is especially true if the work done in another clinic which tends to show that there is a definite ratio between irradiation dosage and creatinin output is confirmed.

The authors' summary is such an excellent resume of their article that we quote it:

"1. The literature concerning the effect of irradiation on the formed elements of the blood is confusing. * * * * *

"2. A study has been made of the blood of 42 cases, chiefly of cancer, before and after 56 roentgen-ray irradiation treatments. Particular attention was given to the observations on 22 of the patients given 36 intensive short wave length treatments. The other irradiations were milder. Cases of disease of the hemopoietic tissue are not included and the statements below require modification when applied to such conditions.

"3. The most important effect of customary therapeutic doses of irradiation on the blood elements is to decrease the number of white cells, especially lymphocytes, so that leukopenia and lymphopenia may occur. Preceding the decrease in the white count a transient in-

crease develops, due to increment of polymorphonuclear neutrophiles. Very small doses of irradiation may permit a lymphocytosis.

"4. When a customary therapeutic dose of short wave length roentgen-rays is given, it causes the white count to reach its lowest point about six days later; at that time leukopenia (a count below 5000 per cu. mm.) is more often present than not. A decrease below normal of the absolute numbers of bone-marrow white cells, which is indicative of marrow depression, is not unusual. Leukopenia lasts on an average about nine days, but may persist for over four weeks. Even if the white count remains above 5000 per cu. mm., the white count often does not return to its pretreatment level for a month. If treatment is given again before the number of cells have remained for some time at their original level, leukopenia of a greater degree and duration is produced than after the first treatment.

"The fall in the lymphocytes is greatest in the first twenty-four hours, but they continue to drop for about three days. These cells rise with the white count, but do so proportionately more slowly. Subsequent treatments may keep the lymphocytes fewer in proportion to the white count than following the first irradiation.

"5. The new short-wave-length roentgen-ray therapy, suitably given, produces no changes in the blood that are of a different character from those occurring after milder yet intensive irradiation. However, it does produce more rapid, marked and persistent changes than milder treatment, and if the treatment consists of merely moderate long-wave exposures it may not even cause a decrease of white cells.

"6. An eosinophilia, of often 7 and as high as 23 per cent, is usual two to three weeks after short-wave-length irradiation. It appears to develop particularly following repeated exposures.

"7. After irradiation the blood contains many degenerated white cells, especially in the first three days. There is scant mention in the literature of this feature of the blood in man. Larger doses produce greater numbers of these cells than smaller doses. After short-wave-length therapeutic irradiations the degenerated cells often amount to 25 per 100 formed white cells.

"8. Some increase of immature white cells may be observed, especially at about the time the white count begins to rise, after large doses of irradiation.

"9. A slight increase of the platelets soon after irradiation is common. They are depressed less readily than the white cells, but following the transient rise they are often found slightly decreased and rarely markedly. Combined with leukopenia they may be an indication of greater marrow depression than a decrease of only the bone-marrow white cells. About four days after intensive irradiation and prior to a definite rise in the white count, the platelets rapidly increase and remain elevated above normal for days to weeks.

"10. Important changes in the count of the red blood corpuscles and hemoglobin percentage do not occur as a result of mild or intensive

therapeutic irradiation. Changes in the numbers of immature cells occur.

"11. The clinical condition of the patient will influence the degree and duration of the blood changes after irradiation, but anemia per se does not seem to be of any great importance. The white cells of patients whose clinical condition is similar, given the same dose in the same manner, show considerable variation. On the average, patients with higher white counts before irradiation will develop leukopenia and marked leukopenia less often than those with lower counts.

"12. Much more important than the condition of the patient in determining the influence of irradiation on the blood is the size, intensity and character of the dose; larger doses producing greater blood changes than smaller ones.

"13. The amount of surface area irradiated is a factor of great importance in determining the degree and duration of the decrease of white cells. The greater the surface area exposed to a given amount of irradiation the more profound, on the average, is the effect on the white cells. Secondary irradiation, which is greater with larger than smaller doses, with a short wave than long wave lengths, and with a larger than a smaller portal of entry, probably plays a role in the production of the blood changes.

"14. Depression of the activity of lymphatic tissue and bone-marrow are probably undesirable states, yet may occur for even weeks after irradiation without any obvious detrimental effect. In spite of the production of leukopenia and lymphopenia, the benefits derived from radiation appear to offset these changes.

"15. Prior to irradiation, particularly if one dose has been given, the blood should be examined. A white count alone will usually suffice to indicate the state of the hemopoietic organs. If 5000 per cu. mm. or more, irradiation may be given without producing serious harm to the blood forming tissues. It is not ideal to give irradiation when leukopenia is present, but it may be done without disaster. With leukopenia, especially when marked, repetition probably becomes a more serious event.

"16. Before treatment is given to a patient with leukopenia, a complete study of the formed blood elements should be made, for it may reveal a greater degree of marrow depression than that shown by leukopenia only, and thus induce one to decide against irradiation. In order to determine whether or not to treat a patient with a given degree of leukopenia, one must decide whether the benefits of treatment will offset the disadvantages of an increased depression of the hemopoietic tissue. This latter condition may become of relatively little importance and be distinctly less harmful than permitting a lesion to go untreated."—W. E. V.

TOBACCO AND TUBERCULOSIS

A very instructive article under this heading is contributed to the Journal of Outdoor Life, by James J. Waring, of Denver. He has gone over the literature carefully and combined with it his own observations over a three-year period with a special reference to smoking. He

stresses especially the fact that it is the tobacco in the cigarette and not the paper or "dope" that is harmful. Five definite conclusions are drawn: (1) Smoking increases expectoration and commonly aggravates a pre-existing cough; (2) it increases lassitude; (3) it not infrequently causes a rise in temperature; (4) it usually increases the pulse rate; and (5) it ordinarily causes loss of weight.

His table of symptoms of chronic tobacco poisoning we quote:

(1) Loss of appetite.
(2) Sour stomach.
(3) Loss of weight.
(4) Chronic catarrhal inflammation of nose and throat with a characteristic cough.
(5) Acceleration of the pulse.
(6) Irregularity of the pulse.
(7) Pain over the heart.
(8) Mental and physical lassitude.

It will be noted that practically all of these symptoms are also common findings in tuberculosis of the lungs.

Based on observations on 1417 tuberculous subjects, when his figures are reduced to percentages they mean that abstention from tobacco increases the chances of arrest approximately forty per cent, and his final conclusion is that, everything considered, especially nutrition, digestion and assimilation, the consumptive cannot smoke at all with impunity.—W. E. V.

AN OLD FRIEND IN A NEW DRESS

The dosage of digitalis has always been a problem—for two reasons: physiological and pharmaceutical. And these two are obviously interrelated, for unless a reliably uniform preparation of digitalis is available, how can there be uniformity of dosage, even though there may be agreement as to the physiologic effect aimed at?

The profession seems to be partial to the tincture, unless the case is one which demands hypodermic treatment; and of all the tinctures offered, the best is, undeniably, one that is made from select digitalis leaves, standardized by physiologic test, put up in small packages protected from light and air, and, of course, dated so that the physician can tell at a glance how old it is.

The reputation of Parke, Davis & Co. is such that what this house has to say about its Tincture No. 111, Digitalis, in our advertising pages, will be found well worthy of careful consideration. Further particulars, if desired, will no doubt be supplied by the manufacturers.—Adv. news note.

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FUNDAMENTALS IN PSYCHOTHERAPY

By TOM A. WILLIAMS, M. D.
Washington, D. C.

Delivered Before the West Virginia Medical Association Annual Meeting, Wheeling, May 1924.

Wherever a therapy without a sound foundation succeeds, it is a matter of the chance of the particular case fitting the therapy. A certain proportion of cases will be cured by that therapy, ill founded though it be. But a large proportion will not be benefitted which should be, and will be when therapy is soundly founded.

Hence, the first fundamental of psychotherapy depends upon the clearing away of the many catch words and shiboleths which are collecting around it. Of such is the assertion that a neurosis is necessarily a defense in the sense that it is fabricated by the patient for that purpose, whereas, although it may be utilized for defense, that is only secondary.

Also secondary, I believe, is the repression of a distressful circumstance attempted by some patients. The glib talk about repression into the unconscious is a weed to be ruthlessly cut away if sound psychotherapy is to be performed. Indeed, psychic agencies which produce symptoms are not unconscious any more than they are usually repressed.

To talk of "the unconscious" is to think in the same way as the necromancers who talked of demon possession from without, and who exorcised the devils, setting them free to enter animals or the infernal regions, whereas the demon in the unconscious is exorcised into the sphere of consciousness where he becomes harmless, no less mystically, by a process of shedding his emotional contest—where, is not

said, as neither metempsychosis nor inferno are popular concepts nowadays.

In dealing with emotional disorder not of physical basis we must study its genesis. That is never direct, i. e., it always depends upon apperception, e. g., one cannot be afraid unless one perceives something to be afraid of even when only the product of imagination in memory is the agent. (See my Dreads and Besetting Fears, Little, Brown & Co.)

The diagnostician must wend his way through these excrescences upon the body of fact with which only the patient can furnish him. He has learned how to distinguish artefact from fact, fictional interpretation from true experience. As in internal medicine, the patient's presenting symptom is frequently an unimportant one, the really important one having to be elicited by him who knows how.

The first substratum is the knowledge of exactly what one is dealing with. This is diagnosis, not in the sense of giving a specific name to a syndrome, but in the sense of detecting and understanding each element in that syndrome, what we call the mechanism of the syndrome.

One of the pitfalls in this respect is the evaluation of the patient's utterances. Many of these are interpretations of what he experiences. These are always erroneous, as they are imbued by the false psychology gained in part from grandmother's tradition, in part from the almost meaningless shiboleths of the last medical generation, but principally nowadays from the chaotic mass of current psychological popularizations—from the raw suggestimists, with their ridiculous affirmation of "I will think healthy," through the half baked popular psychologists, without clinical knowledge, but often giving shrewd advice, up to the most dangerous of all, the intellectually ill-balanced physician psychiatrist, who seizes avidly upon each new theory from abroad to exploit it to the uttermost for the gratification of his passion for performance of the marvelous, for notoriety, or even in some cases for lucre.

Some of these elements may be of bodily origin, and with these psychotherapy can have nothing to do, even though it may be emphatically required for many of the elements of disorder. Fear of going out based upon a labyrinthin vertigo should be met not with psychotherapy but by lumbar puncture, or other suitable measures. To deal with a depression of spirits by analyzing the psychological life of the patient is no better than could be expected of a layman, or one of the charlatans so fond of exploiting psychotherapy, but it is not worthy of a serious physician until he has ascertained that the depression is not the consequence of cardiac insufficiency, metabolic perversion, or latent infection. To attribute erethism with anxiety uniquely to psycho-sexual disorder is a mental process not different in kind from that of a sea captain who uses bottle No. 6 for the colic. Good sense on the contrary dictates the need of discovering whether the anxiety is not a mode of reaction to physical distress such as is produced by an intoxication, a meningo encephalitis, a visceral disease, a thyroidal hyperactivity not of psychic origin at all, or whether a neoplasm, or a psychosis may be the source. Even

if anxiety is of a psychic origin, it is rash to assume that sexuality is the cause. Impartial diagnosis shows often that it is not so. I need only refer to several cases of phobia which I have published during the last ten years, in which fear of situations which have nothing to do with sex was the generic factor, and all of which were cured usually in about a week by properly dealing with the mechanism upon which the anxiety and fear were founded. (See Intnl' Clinics 1919, Differentiation of Phobias and Obsessions.)

Suggestion, implicity in all animal relationship, should not be fundamental nor sought in psychotherapy, as many preach.

Changes of attitude induced by suggestion are unstable because so easily disturbed by subsequent suggestion. What we should seek is to build solid, not just to prop up. Suggestion is usually a prop, or still worse an anodyne or a blinder to reality and it is by teaching the real not by falsifying it that we help the faltering. It is not truth which is terrifying but misunderstanding about it. Not imagination is bad but its perversion.

Suggestion is a disingenuous inculcation of what we want people to believe, no matter how, whether good or bad in intent.

To withstand, one must understand, by standing alone, as one should. There are those who say truth cannot be borne but must be sugar coated. These are pessimists, jaundiced or disillusioned by a false philosophy. They have not looked at nature dispassionately. They are devolutionists, reactionaries at heart, not evolutionists. They have looked at life through the spectum of a self-satisfied sciolism and thrown up their hands when they spy a monster of their own creation in the path. They are moral weaklings who distrust the world because they find no truth in themselves, projecting upon life their own effectively. Like all weak and ignorant persons they advocate evasions, props, shibboleths, fads, conformities, panaceas and mystery mongerings. They follow "suggestion," "psycho-analysis," or any nostrum which saves them the trouble of thinking clearly, really analysing the elements of their patient's disorders.

A fundamental psychotherapy must eschew all such. The practitioner must seek the manner of induction of a patient's distress or distortion and he must devise ways of reconditioning that until due activity may eventuate in reasonable comfort. He must sustain the patient in the initial, sometimes disagreeable efforts. But this he must do not to support him for life but to teach him to stand alone, a self sustained human being playing his part in life as joyously as his nature will allow.

For instance: Awkwardness and shame, paralyzing initiative in work and society due to environmental repression.

A woman, aged 26, was referred by a physician who had unsuccessfully treated her several months. She was very reticent, disclosing her complete story with much difficulty and trepidation. She was eating her heart out in routine work in which she was neithing using her college education nor satisfying her craving for contact with other human beings. Nor did her leisure afford her the kind of companionship she longed for. She did not

know how to reach away from the safe monotony of a sheltered life into the adventurous variety of the constructive idealism which she worshipped. She was immediately handicapped by a lack of ease of manner and charm, which she envied in others; she was ashamed of her awkwardness.

This situation might only too readily have been attributed to the humiliation she felt at the intense and facile stimulability of her physical sexuality, and a prolonged analytic search might have proved too strong a temptation to those psychopathologists who can think only conventionally.

But as insistent as were the physical discomforts of the patient, I considered that the psychological problem was even more important and that to solve this, a change of environment was imperative. It should not need to be said that explanations as to the significance of reproductive physiology were given, and that these were of great comfort to the patient. Although they scarcely affected the phenomena themselves, they altered many of the psychologic consequences. The patient was assisted to take steps to prepare for an occupation which would favor human contact in constructive work, in which she is now, a year and a half later, happily engaged without supervision.

Thus even when the aspect of the case is highly sexual and when phyiscal ebullitions are perhaps the most painful of the discordant elements of a scarcely tolerable situation, yet they may not be the main factor of the maladjustment at all, for adjustment may be effected without any success in mitigating these difficulties. The real issue may be a psychosocial one, and affective satisfaction (see Some Neglected Psychopathic Factors, J. A. M. A., 1922) is then gained by the provision of opportunity for the kind of intellectual activity craved.

Physical Effects of Emotion

"This thought coming on the top of his mood of despair and general dissatisfaction of everything mundane acted on him as some powerful chemical," says a popular writer in a recent book. And the book is not a disguised thesis nor the product of an amateur psychologist inflicting his immaturity psychoanalytically upon a greedy public. Indeed it is only a story designed to amuse. All the more emphatic then is the observation of physiological psychology that a strong emotion may act upon one just as does a strong chemical or drug.

But although known since Pawlow and repeatedly verified by other experiments since, there are many clinicians who fail to appreciate the physical effects of emotion. This is especially true of the less spectacular but longer continued emotions which may escape the notice which a sudden shock attracts. Other reasons for this neglect may be the former lack of experimental proof, the extreme fallaciousness of clinical induction and the frequent errors therein, and lastly the prejudices excited by the exaggerated claims of exponents of so-called applied psychology and those who have applied this under a banner of some cult. To be included in this category unfortunately are some amateur psychologists in our own profession who rashly accept or reach conclusions without the training in neurology

and psychiatry which would teach them to avoid such fallacies.

Nevertheless it is proved firstly that sudden emotions alter physical states. It is a legitimate induction and an apparent fact of observation that long standing emotions modify physical states. Secondly, that emotions are induced by means of apperception should be a commonplace. But in practice this fact has been grossly neglected.

Observations of similar facts of psychopathologists are not lacking, and the pertinent "Mystique Moderne" refers to the well being which she felt "as if after taking morphine." Quoted by Leuba in Jour. Abnorm. Psychol. Oct. 1920.

Now apperceptions are given rise to by situations, whether internal or external. Among the internal situations are injuries and diseases of the body. Their psychological consequences are direct as pain, misery, discomfort, distress, one form of anxiety, motor agitation. These cease as soon as or soon after the bodily disease terminates.

The external situation is just as capable of altering the apperceptive state. Good news exhilarates, deprivation grieves.

Thus these considerations have shown how important for therapeutics is the understanding by the physician of the fundamentals of the process which causes the disease of the patient. This is equally true whether the causation is physical or psychological. For example, faulty coordination due to the process of infiltration of spinal roots is rectified by arsenicals and mercurials only when the reaction to troponemata is in activity. Faulty coordination due to infiltration in reaction to the bacillus of Koch is removed only when the immunizing of the locality is augmented. Faulty coordination due to a process of nerve degeneration ceases only when the nerve elements are permitted to regrow through removal of the responsible toxin. Faulty coordination due to a necrotic process in the spinal cord is without present remedy when due to pernicious anemia. When due merely to the pressure of a new growth, the process may be arrested by removal of that growth if destruction of the responsible tracts has not occurred.

The incoordination of tremulousness when due to a process of ingravescent abiotrophy or slow destruction of tonus regulating mechanism in the brain stem or basal ganglia may only be palliated. But when the process which induces tremor is a dynamic response to a situation, known as emotion, it can be completely abolished by proper dealing with psychological process of the patient whereby his conception of the situation is changed.

A depressed patient may be pricked into responsiveness for a time, but he is only truly helped by the removal of the cause of depression which may come with the understanding of the process which produced it whether infection, intoxication, endocrin deficiency or a mental attitude.

An Insomniac may be clubbed into unconsciousness by a narcotic, which in no wise alleviates the process or eliminates the cause which is responsible for insomnia. This may be a metabolic disturbance, a lesion of structure or the kind of dynamic process we call psychological. By proper discrimination

among these, we usually are able to modify the processes disturbing proper function, and when that is done, insomnia spontaneously ceases.

These principles are not only true of the few examples above cited, but apply to the whole sphere of medicine. Indeed they are an induction from the whole field of human experience and are known to every thinking individual. However, there need be no apology for their explicit statement, for alas! they are too often forgotten in a short-sighted attention to details, a human weakness from which the medical profession has acquired no special exemption.

The method of carrying out these principles of treatment may be entitled re-education. It consists first of the patient's enlightenment as to the real significance of the situation which upsets him. By means of this a re-orientation is sometimes effected forthwith, as is shown forth in some detail in many of the examples related in the book "Dreads and Besetting Fears," afore mentioned.

Education, however, demands more than explanations, and the ability to deal with the situations require practice, in most cases. The advantage of guidance in this is an obvious commonplace in all the arts and in sport coaches and tutors are almost universal. Hence in the art of adaptation to life, practice in doing under guidance is no less imperative if more than a makeshift is to be aimed at. Unfortunately the control of the practice ground is not in the hands of the psychiatrist but is haphazard. We have usually to makeshift with modifications of circumstance inadequate in scope. The sanatariums profess to afford this modification of circumstance; but very few of them succeed, as the deterioration of this ideal is almost irresistible under their condition of operation. What is required is a school for re-education, school for the training of misfits. Such schools were operated in the psychiatric centers of the French Army during the World War, and in the Convalescent Training Camps in the British Army in France in its latter part. They succeeded wonderfully in their object in restoring men to service, most of whom were the victims of the situation psychosis provoked by life at the front.

The ex-service men now under care of government agencies for their restoration are by the thousands victims of situation psychoses towards compensation and care. The machinery designed for the relief of this strongly tends to foster their disability by adding weight to the motives thereof. It affords sweeping demonstration of what reeducative machinery should not be.

Fortunately, in thousands of instances, enlightenment and persuasion powerfully modify the victim's mental attitude towards the situation which has made them psychotic and they educate themselves thereby. But the weak man needs to acquire habits with which to deal with situations, and most of these can be gained only by practice. Hence when a situation psychosis has been allowed to perpetuate itself through neglect, there has become habitual reaction the resetting whereof may require ordered practice and reconditioning under the control of a psychiatrist with an armamentarium

greater than the consulting room alone even though in the majority of cases the latter suffices.

* * *

Discussion

Dr. Charles A. Wingerter, Wheeling: I want to take this opportunity of emphasizing to and impressing upon those who do not know Dr. Williams, a knowledge and understanding of his worth to the neurological world of America. Dr. Williams stands like a Gibraltar of common sense. As he said in his paper, there are a great many fanciful theories in this field, and there is need of somebody like Dr. Williams, who holds hard to common sense and good judgment. To exemplify what I mean, he refers to the fact that a great many psychoanalysts lay a great deal of stress upon the sex problems of their patients, and create in those patients greater evils than they had before coming to the physician. Dr. Williams, in his voluminous writings, has made a strong protest against that, and the profession and the laity therefore owe him a great debt of thanks, and I want to emphasize that here.

There is not much to be said on a subject which Dr. Williams has treated. He has emphasized the need for diagnosis, and that can not be emphasized too much. One of the surgeons here reported to me that the Mayos had said there should be a closed season against neurotics, there are so many being operated upon without successful results without therapeutic results, and very often they are coming back for treatment and come back with new fears—fear that the anesthetic may be the beginning of new troubles. I want to emphasize what Dr. Williams said about understanding the fears of the patients. I agree with him that the repression comes from fears. I had a woman come to see me not long ago whose characteristic was that every time one of her neighbors had a sickness, typhoid fever, pneumonia, cancer or whatever it was, she feared that she had that sickness. I found that her mother, very foolishly, to make her obey told her that things would poison her. That fear was there and was forgotten. Later she repressed it to get rid of it. She was a neurotic child and the mother instilled a fear. The fear was repressed, but later she had a fear of infection, of poisoning, from touching a book, a doorknob, a table, or anything else a sick person had touched. I want to emphasize the importance of one thing Dr. Williams said, and that is the need of asking a patient Why? why? why? The fact of the matter is if we can get the why in those cases all we have to do then is to bring the patient back to the realization of the actual realities of life, the actual truth of things. I have said that my method of treatment could be summed up in one sentence from the Scripture, "Ye shall know the truth, and the truth shall make you free." If the patient can be taught the truths about the universe, about his Creator, and about himself, he will become well. Reeducation simply means the application of those truths to their individual lives, and I think all these nervous problems, these therapeutic problems, are at bottom a religious problem. About the sex problem, there is no such thing, in my mind. The real problem there is the pleasure-pain problem. If the

patient can learn to control his will and to put away the pleasureable things that are morally wrong, if he can learn to do that, you will have solved your sex problem or any other problem. I think we make difficulties for ourselves when we take that as a special problem. The whole thing is a matter of understanding his duty to his neighbor, to God, to himself, to educate him to the point where he will accept the pains of life that have to be accepted and refrain from the pleasures of life that are harmful. If he is an atheist he has to get to the point where he accepts the philosophy of the poem:

"I am the captain of my fate;
I am the master of my soul."

If he has any deeper faith than that you have to find out what he believes and emphasize the moral side of life, so as to build on what substructure he has. So we must not use psychotherapeutic measures on a patient unless that patient is a psycho-therapeutic case, and in treating a patient we must use our common sense, our knowledge of human nature. We must keep close to common sense at all times and not allow ourselves to be carried away by fanciful theories that come into vogue.

I trust that Dr. Williams will come to attend our meetings every year and give us every year a more valuable paper than he did the year before, which he has done today.

* * *

Dr. Williams, closing the discussion: The last part of my paper was devoted to the subject of suggestion, which I forgot to mention, in giving a brief summary of it. Every doctor, of course, uses suggestion with his patients, to keep them amused, to keep them happy, to make them think they are going to get well. I have no fault to find with that, but often that should be done with great discrimination, because there is a very common impression among the people that doctors jolly them along and do not let them know how sick they are. So they do not believe the doctors, and consequently we lose the confidence of our patients if we are unjustifiably optimistic. We should get an understanding of the mechanism of the patient. Suggestion will never do that, but will only blindfold him further as to the realities he has to see.

There is no difficulty in talking about sex if we do it decently. Talk about it just as if it were the stomach or the bladder. If the patient sees you are ashamed of talking about sex she will get embarrassed, so you must talk about it in an impersonal way. I had a patient, a splendid girl, a college graduate, twenty-six years of age, who was doing very poor work and was very handicapped in her life. One of the elements was tremendous sexual passion, so much so that it was aroused by seeing men on the street. She was very much ashamed of it. While she still has this tremendous passion, and did not get rid of it, I did teach her how to live with it. She is doing good work now, work that she likes, although the sexual problem is still there and she will have to solve it for herself. But we did furnish her with adequate motives to live, which she did not have before. In that sense one does give the patient a new philosophy, and insofar as it is an aim of life it is religious. If the patient is an atheist he must be appealed

to by some of the relations of life.

Please let me warn you, do not diagnose psychoneurosis by exclusion. If you can not find a psychoneurosis yourself, send the case to a neurologist; if he does not find anything then there must be some physical cause which you will have to root for.

INFECTIOUS DIARRHEA

By CLAUDE L. HOLLAND, MD., F.A.C.P.
Fairmont, West Virginia

Read Before the West Virginia Medical Association, Wheeling, May 14, 1924.

After accepting our secretary's invitation to present a paper before this body, I began casting about for a subject. Since we will, in a short time, be in the midst of the heated season in which disorders of the gastro-intestinal tract are most likely to prevail, and particularly so among children, it occurred to me that a brief discussion of some phase of this subject would be timely.

The subject of diarrhea is so broad in its various phases, and a comprehensive classification is so difficult, because the various conditions merge into each other, that it is difficult to consider any one form apart from the others.

I shall, however, endeavor to review briefly only that phase of the subject classified as Infectious Diarrhea, which has also been designated by the terms Ileo-Colitis, Entero-Colitis, Follicular Enteritis, Dysentery, Inflammatory Diarrhea, etc. This phase of the subject is so great that a review of it alone must necessarily be abbreviated.

The line of differentiation between fermentative diarrhea and infectious diarrhea cannot, in the present state of our knowledge, be closely drawn. The clinical symptoms in severe cases of the former may differ but little from the symptoms manifest in mild cases of the latter. In both conditions toxins resulting from bacterial activity are absorbed into the blood stream and give rise not only to similar symptoms, but to similar pathological changes in other parts of the body.

Roughly it is assumed, however, that in diarrhea of the fermentative type the bacterial activity takes place in the intestinal contents alone, while in infectious diarrhea the bacterial activity exerts itself on the intestinal wall. In the former condition, therefore, the local lesions are slight, while in the latter the lesions in the intestines may be and often are severe.

In fermentative diarrhea it is presumed that bacteria do not pass through the intestinal mucosa and invade the circulation while in infectious diarrhea it is probable that they often do pass through and invade the blood stream.

Etiology

Infectious diarrhea is most prevalent in the heated season, the number of cases often being in direct proportion to the extremes of temperature. It attacks the artificially fed infant much more often than the breast fed. It may, however, occur in children past the nursing age. Heat, as a factor, acts first by its depressing and enervating effects upon the child, thus lowering its resistance, and second by favoring the growth of pathogenic bacteria which may invade the food supply. Other predisposing causes,

in addition to infected food, are improper food and feeding; overcrowding, as in tenements; poor care and bad hygiene in general.

The cases occur sporadically, though there is certainly an epidemic influence. Whether, in the event of a number of cases occurring together, the contagion has passed from one child to another, or all have been infected from some common outside source is not known. The latter however seems the more logical explanation.

No specifiic micro-organism has yet been demonstrated as being the cause of infectious diarrhea. A number of organisms have, however, been incriminated, chief among which are the various forms of dysenteric bacilli, notably the Shiga bacillus, the gas bacillus, Bacillus pyocaneus, colon bacillus, the streptococci, and some others.

Pathology

The local pathological changes are usually limited to the colon and the lower portion of the ileum. They may consist of only a catarhal inflammation, or there may be superficial ulceration. Again the solitary glands of Pyer may show decided hyperplastic changes, or these structures may be found to have undergone ulceration. In still other cases, considerable areas of the intestinal mucosa may be covered with a pseudo-membrane. The mesenteric lymph nodes will in most cases show hyperplastic changes, and have in rare instances shown suppurative changes at post mortem.

Secondary degenerative changes in the parenchymatous glands, especially the liver and kidneys, is quite common. The changes in the kidneys, however, rarely if ever reach the stage of of a true nephritis.

Due to a lowering of the general bodily resistance secondary infections of other structures, notably the middle ears and lungs, may take place, and a suppurative otitis media or a broncho-pneumonia complicate the clinical picture.

Symptoms

The onset of infectious diarrhea may be preceded, for two or three days, by malaise and symptoms of indigestion but more often the onset is acute, the first symptom being diarrhea accompanied by moderate elevation of temperature, 100 to 102, though it may occasionally be much higher. The fever is likely to remain fairly constant throughout the early days of the illness, without any marked remissions or intermissions.

Vomiting is seldom troublesome in this disease, but the appetite is usually much diminished, and occasionally complete anorexia is observed.

The stools may range in number from twelve to twenty-four or more daily and are usually small, many being but little more than a stain upon the diaper. The first stools are usual fecal matter, which is later mixed with blood and mucous, and after a day or two consist almost entirely of mucous and blood. Pus is seldom visible to the unaided eye until after several days have elapsed, and indeed may not be observed at all without the aid of a microscope, by means of which it can nearly always be demonstrated. Occasionally, in severe cases, portions of pseudo-membrane may be found in the stools. The bowel dis-

charges are usually alkaline in reaction and give off a musty odor, though in some of the more severe and fatal cases the odor may suggest putrefaction.

Tenesmus and abdominal pain are early and usually well marked symptoms, and often greatly interfere with the patient's sleep and rest. Abdominal tenderness is usually present, though not marked, and while there may occasionally be distention, the great majority of the cases present a sunken abdomen. As a result of the straining, prolapse of the rectum is not infrequently observed.

The spleen may quite frequently be palpated but the enlargement is usually slight, and the liver while not as a rule showing any increase in size may occasionally show marked enlargement, the lower border extending to the umbilicus and sometimes lower.

The urine is always diminished in amount, first, because of a diminished intake, and second, because of the increased loss of fluid from the bowels. Glycosuria is rarely present but small amounts of albumin are frequently found.

A moderate leucocytosis, around 20,000, is usually found, though it may be much higher. In some of the severest cases, where because of the overwhelming toxæmia the patient is unable to react, there may be no increase in the leucocytes. Indeed leucopenia may be noted.

In some of the fatal cases, shortly before termination hyperpyrexia and uncontrollable vomiting may be observed, presumably due to absorption of an overwhelming amount of toxic material.

Diagnosis

In the early stages it is impossible to make a positive diagnosis between a fermentative diarrhea and an infectious diarrhea, since the symptoms of the two conditions run so nearly parallel. The temperature curve is probably the most valuable single indicator. In the former the elevation is apt to be either very slight, or high and fluctuating, while in the latter it is moderate and constant.

In severe cases when the stools have become characteristic the diagnosis is readily made, while in mild cases, in which there is no microscopic blood and comparatively little mucous in the stools a positive diagnosis may be possible only through the aid of a bacteriologist.

Some cases of infectious diarrhea show marked cerebro-spinal irritation. If these symptoms are in evidence before the appearance of the characteristic stools, it may be necessary to do a lumbar puncture to clear up the diagnosis.

Intussusception is the only condition with which a typical case of infectious diarrhea is likely to be confused. The most valuable differential sign, when found, is the presence of a palpable mass in the abdomen. The absence of a palpable tumor does not, however, rule out an intussusception. In general the onset of the latter condition, is more acute, the abdominal pain more intense and the presence of shock more likely to be in evidence. The stools in infectious diarrhea are at first fecal, the blood and mucous appearing later, while in intussusception the stools present blood and mucous almost at once. Nausea and

vomiting are also more likely to appear early in intussusception. The muscles of the abdominal wall rarely show any spasm in infectious diarrhea but are apt to do so in intussusception.

Treatment

The things of prime importance in the management of these cases are: First, to put the patient at rest as effectually as possible; second, to supply fluids to the body tissues; third, to combat the toxæmia; fourth, to nourish the body and support the failing strength of the patient until the trouble has passed.

The first is accomplished by putting the patient to bed under the best possible hygienic conditions, and with the most efficient nursing care obtainable under the circumstances. The intestinal tract will usually have been thoroughly evacuated before the physician arrives, either by the irritation set up by the infectious process itself, or by the administration by the parents or nurse of that old time-honored and much abused household remedy, castor oil. This drug is often advised as a routine in the beginning of every case of this malady, and while it may be of value in selected cases, it should not be given unless there is strong presumptive evidence of food or fecal masses above the lower colon which it is desired to promptly remove. It is probably more rational, if such deleterious matter is suspected to have been retained, to confine our efforts to a simple irrigation of the colon at the beginning. This is not, however, a necessary routine since the diarrhea is so profuse that spontaneous drainage of the intestinal canal is often quite sufficient. The routine daily repetition of colonic flushings in these cases, as was formerly advised, is in our opinion of very doubtful value.

When the intestinal tract is empty it should be put at rest and the abdominal pain, straining and tenesmus relieved as much as practicable, by the judicious administration of opium in some form, possibly the camphorated tincture, or Dover's Powder.

The problem of supplying water to the tissues to combat the rapidly developing dehydration, anhydremia and often acidosis is of prime importance. If fluid is taken in large amount by mouth, and retained, this may be sufficient; if not, other means of administration must be promptly adopted. The administration of a Murphy drip by rectum is not practicable, since the fluid will not be retained and absorbed in sufficient amount. A better method is the giving of fluid by the drop method through the nose into the stomach. Salt solution under the skin or intravenously may be given with benefit.

A preferable procedure, however, is the administration of Lock's solution, which, being isotomic, is less likely to disturb the salt balance in the tissues. This may be introduced directly into the blood stream at the superior longitudinal sinus if the fontanelle is still open or into the jugular vein if desired. The technique while not simple is not extremely difficult, but the injection must be made with extreme care, especially into the sinus. Our preference is for the introduction of this solution by the intra-peritoneal route, the technique of which is extremely simple and has in our hands been so satisfactory that I

commend it to you as a life-saving measure in these cases.

A most ingenous method of supplying fluid to the tissues is that lately devised by Schloss, who gives a hypo-tonic salt solution into the blood stream, thus facilitating the absorption of the fluid from the peritoneal cavity.

The problem of food and feeding in infectious diarrhea is second only in importance to that of supplying fluid, and is often most difficult. The importance of an initial starvation period of from twelve to twenty-four hours is almost universally agreed upon, during which time the administration of water should be pushed vigorously. At the end of this period food must be supplied. The old method of prolonged starvation in these cases is to be condemned. While the patient may not be able to digest all the food supplied he will be more likely to come safely through, and be in better condition if food is administered.

A knowledge of the predominating micro-organism, when it is possible to obtain this, will be a valuable guide as to the character of the food suitable in a given case. For example, the various dysenteric bacilli grow readily on protein, and produce large amounts of toxin. Therefore in their presence it would be logical to administer foods rich in carbohydrates. On the other hand if the gas bacillus, which flourishes on carbohydrates, is the causative agent, the rational diet will be one high in protein.

A very simple and efficient test for the presence of the gas bacillus is readily made by mixing a small portion of the stool with half a drachm of dextri-maltose in 15 c. c. of water in a sterile fermentation tube, stoppering with flamed cotton, and incubating at room temperature for twenty-four hours. The presence of the gas bacillus will be shown by gas displacing the liquid.

If the condition is due to the dysenteric bacillus, a rational method of feeding will be, briefly, about as follows: At the end of the starvation period, begin the giving of barley water. After twenty-four hours 5% to 8% lactose should be added. After a day or two more begin the addition of boiled skim milk in small amounts. The skim milk is gradually increased as the baby improves until the mixture is made up of three fourths skim milk and one fourth barley water with 8% lactose. As further improvement becomes evident the skim milk is gradually replaced with whole milk and the sugar cut down. The giving of cereal gruels, preferably barley, is then begun in small amounts and gradually increased.

It is important, during convalescence, that the fat in the food be increased slowly and cautiously, since most babies after an attack of this disease exhibit a low fat tolerance. The sugars and starches must be chiefly relied upon for fuel.

In the feeding of cases of infectious diarrhea caused by the gas bacillus, the best results will be obtained by the use of protein milk of which there are a number, in dried form, on the market requiring only the addition of water. A fresh protein milk may be readily prepared in the home by adding some one of the soluble protein preparations such as "casec," "protolac" or "larosan" to lactic acid milk or ordinary buttermilk.

My preference is for a fresh protein milk, made from fresh lactic acid milk, because of its large content of living lactic acid bacilli, which seem to be directly antagonostic to the gas bacillus and aid in driving it out of the intestines.

It sometimes happens that the baby refuses the acid milk because of its sour taste. This repugnance may sometimes be overcome by the addition of saccharin. Again a sweet protein milk may be made from boiled skim milk by the addition of some one of the above named soluble protein preparations, such as "casec" or "protolac" and I have found this very satisfactory in some cases. As improvement takes place, sugar in some form is gradually added. Finally starches and fats are put back into the diet as convalescence advances and the patient is slowly and carefully brought back to a normal diet.

Drug therapy, directed at the disease per se, is of no value. The so-called "intestinal antiseptics" are worse than useless.

The employment of enemas containing in solution, silver nitrate, tannic acid, sulphate of copper, or other astringent agents have not been satisfactory, and have been discarded in my work. Our impression is that they increase rather than lessen the straining and tenesmus. Likewise the giving of all such agents by the mouth has been discontinued.

The drugs from which we have, we believe, derived the greatest benefit in the treatment of these cases are sodium bicarbonate and bismuth subcarbonate, which are given in good sized doses. Alcohol, given preferably in the form of brandy, has been found of value. These babies tolerate alcohol well. It should therefore be given well diluted in moderate and frequently repeated doses. Alcohol being a saver of tissue waste, in that it inhibits protein metabolism, is from our viewpoint a very valuable remedy in this condition.

It may be necessary to resort to cardiac stimulation. For this purpose the most valuable drugs are digitalis, strophanthus, caffeine and camphor. The hypodermic administration of these agents will be found most effective.

A very valuable measure in my hands in the later stages of this disease, when the patient has reached that low adynamic state, so often seen, is the intra-peritoneal transfusion of citrated whole blood. This is given by gravity, without typing. The technique is extremely simple and may be carried out in the home.

Thus briefly I leave the matter with you hoping that many important considerations may be brought out more in detail in the discussion which is to follow.

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Discussion

Dr. J. T. Thornton, Wheeling: I want to thank Dr. Holland for this most excellent and complete and interesting paper, which is certainly of great value. The great importance of the subject is shown by the chart which was hanging here yesterday, on which diarrhea was given third in the list of causes of deaths in West Virginia. I really had not realized that before, that diarrheal diseases come third in the list of causes of deaths.

Now, with regard to the different types of diarrhea, I realize that in different years we have different

types. For instance, here in Wheeling last summer nearly all the diarrheas belonged to the infectious type. All showed blood and mucus and pus in the stools, and many of them were very, very sick. Another point about infectious diarrheas is that they are of long duration; usually they last very much longer than other forms.

Dr. Holland spoke of hyperpyrexia occurring in these cases. In this connection I want to speak of a child I saw last summer who had a temperature of 108 by rectum. There was no question about it. The child seemed moribund. It seems to me those high temperatures are due to the toxic effect on the heat centers of the brain. Therefore I did a lumbar puncture, telling the parents that the child might die during the operation. Strangely enough, the child seemed to improve after that, and it made a complete recovery.

I am very glad that the Doctor said there is no necessity for catharsis and irrigation, except perhaps once or twice. Those forms of treatment have certainly been overdone. The Doctor emphasized the water intake, which to my mind is the important thing. The question arises, how much water shall you give these babies? It has been estimated that perhaps one-fifth of the body weight in fluid should be given each twenty-four hours, which is a pretty good guide.

In regard to feeding, I have used protein milk, which Dr. Holland mentioned, with most excellent results. It should be emphasized that some form of sugar should be given with protein milk, preferably dextri-maltose, because protein milk is very low in sugar. One per cent should be added at first, then two, three or five per cent, depending upon the amount gained. The children should not be overfed at first; we should not attempt to fulfill their caloric needs, by any means, even though there is some loss of weight at first. I also use the lactic acid milk made with skim milk, using it interchangeably with the protein milk with good results. Some of these children absolutely refuse all foods, and it becomes a difficult matter to nourish them. In these cases, if you force the food down, just as you give a dose of castor oil, after two or three times the child will usually take the food readily.

I am cautious in the use of opium in these cases, particularly if there is any fever. Caffein I regard as the best stimulant, if any is necessary. I do give an initial dose of castor oil, notwithstanding what the Doctor says.

Speaking of intra-peritoneal injections, the question will arise, how much can you inject into the peritoneum? Of course that depends upon the size of the child, but I should say from three to six ounces in a small child would be the amount to inject.

* * *

Dr. A. A. Shawkey, Charleston: There are one or two things which I would like to add a little emphasis to, and again I say that one of the most important things is prevention. The way to prevent diarrhea is, I think, as Dr. Bloodgood said in his address on cancer, to do more preaching, to educate our people as to the care of foodstuffs, milk especially, and educate them as to the proper time and way of feeding the children; also to educate them in the proper care of

children as to temperature, bowels, etc. By doing that we shall be able to prevent a good many cases. Another thing in which we have to educate our people is that a baby will not starve if you keep it on pure water for from eight to twelve or twenty-four hours.

Just one little note of warning. We are all flooded with literature advertising a certain type of sugar and recommending it as a lifesaver in diarrhea in summer. Now, sugar is all right in a certain kind of infectious diarrhea, but how foolish it would be, in a certain type of fermentative diarrhea, to put that baby on sugar and add fuel to the fire. So we must not be educated by the manufacturers.

To get the alimentary tract completely emptied and at rest is one of the most important features. Rest is a most important element in the treatment of any disease.

* * *

Dr. Byrd Hunter, Huntington: I would like to go on record as condemning the ice cream vendor. These ice cream wagons which go around the streets in the summer time I think cause a good deal of infectious diarrhea.

I think a very simple way to tell the type of organism is by the type of stool. Protein putrefaction will not scald, while carbohydrate will scald.

* * *

Dr. Wise, Parkersburg: Our experience in Parkersburg has been that when we had bad water we had numerous cases of diarrhea; when we had better water we had fewer cases, and when the water got bad again we had more cases. I believe it is a public question just as much as a home question. When we have better ice boxes and better water and better care of the milk we shall have fewer cases of all types of diarrhea.

PRIMARY ENDOTHELIOMA OF THE PLEURA

By B. F. HARDEN, M. D.
Wellsburg, W. Va.

Read Before the West Virginia Medical Association, Wheeling, May. 1924

The onset of pleural malignancy is generally insidious, but in some instances is "stormy" with rapid development of the typical symptoms of acute pleurisy. As a general thing the patient will be able to continue his usual routine for some time, but will find that he is gradually losing energy, becomes easily tired, and with the least exertion suffers from shortness of breath. Later a heavy, dull, vague pain will be noted in the chest. As a rule there is some cough and slight expectoration of moderately thick bronchial mucous, but the patient remains free of fever.

Pain in the chest is the earliest and most significant single symptom. It is usually severe and persistent in character and presents the most distressing feature of the disease.

Primary Endothelioma of the pleura is relatively rare, and from the literature, occurs as a single tumor or as multiple nodules. Dyspnea, progressive loss of weight, and fluid in the chest are the most common symptoms.

Case No. 1. A white man, aged forty-eight, with negative family history, consulted me in January, 1915, complaining of pain in the

right chest. Nothing abnormal could be detected on percussion or auscultation at that time, and a diagnosis of intercostal neuritis was made.

The patient rapidly lost weight and strength and in about three weeks there was marked dullness on the affected side. Aspiration was performed and two quarts of thin bloody fluid withdrawn. This was repeated every week for a period of six months when the patient died of exhaustion. No autopsy was permitted. He had all of the clinical symptoms of endothelioma of the pleura.

Case No. 2. J. H., male, age forty-five years. Occupation, retail butcher. Family history: Father died from paralysis in 1903, age 53. Mother living and well, age 69. Brothers, six, all living and well. Sisters, two, both living and well. Past history: Injuries, slight lacerations. Diseases, childhood diseases, cold and cough every winter, influenza in 1918, duration one week. Present condition began November 7th, 1923, with sharp pain in right side of chest, intermittent and shooting in type. This was accompanied by a dry cough, shortness of breath and temperature ranging from 99 to 101. He continued to work until three days later when he took his bed and called a physician. Physical examination at this time, general conditions: Weight about 180 pounds; Color, good, pulse 120; abdomen, liver about two inches below costal margin and tender, no nodules felt; chest, inspection, right side does not expand; palpation, fremitus absent; percussion, flatness over entire right side of chest below third rib; auscultation, absence of breath sounds below second rib. Left side of chest hyperesonant; heart, normal.

At this time the chest was aspirated and between four and five quarts of clear serous fluid removed. In seven days the chest was again filled and aspiration performed. This time the fluid was bloody (wine colored) and four quarts removed.

Following this, aspiration was performed once a week and the fluid was always thin and wine colored. On December 26th patient was removed to Mercy Hospital, Pittsburgh, Pa. While at the hospital he was aspirated at frequent intervals. The examination of the fluid was negative for endothelial cells, and guinea pigs being injected with this fluid showed no tuberculous condition.

The patient returned home in February, and his condition has gradually been growing worse. He was aspirated at frequent intervals until March 1st, 1924, when drainage was inserted with frequent irrigations. At this time the fluid had become too thick to aspirate. Since March 1st, he has rapidly lost weight and his color is cachectic with loss of appetite, weakness and general debility.

The percussion signs indicate pleural effusion or thickened pleura and are not altered by pleural puncture and the removal of large amounts of fluid. The auscultatory findings point to the presence of a pleural exudate. As a rule there is nothing pathognomonic in the physical signs of this affliction. The signs may vary as they do in the different types of pleurisy caused by other conditions, depending upon the amount of fluid present, as well as upon the duration of its presence and finally the amount of thicken-

ing of the pleura. The fluid is usually of the hemorrhagic type and is present at some stage of the disease is practically every case. The amount of the fluid is usually abundant and is apt to re-form rapidly after withdrawal. In certain cases the first puncture will show a serous fluid, as in case number two, which will become hemorrhagic later on. The average duration of the affliction from the onset of symptoms is from six to nine months.

A PIECE OF EGG SHELL IN A BABY'S LARYNX

By T. W. MOORE, M. D.
Huntington, W. Va.

On May 19th, 1923, H. P., age 11 months, suddenly began choking; physicians were called and after going over her came to the conclusion that she had laryngeal diphtheria and gave antitoxin. Condition kept growing worse; temperature went to 102, possibly a reaction from the antitoxin, when on the 24th an X-ray taken showing a piece of egg-shell about three fourths of an inch long and one fourth of an inch wide within the larynx. When this was told to the mother she remembered that when the baby began choking she was frying eggs and had given the child the shells with which to play. The child was then sent to me 120 miles away. I was able with a direct laryngoscope to see the piece of egg-shell, the upper end of which was protruding between the vocal cords. The glottis was œdematous. With a pair of alligator forceps I took hold of the shell and was able to withdraw it, but after removing it from the larynx I struck it against the laryngoscope and broke it into four fragments, which we were able to put together and when so placed conformed in shape to the radiograph. I passed the bronchoscope to the bifurcation but saw no evidence of any fragments that might have been broken off.

About forty-five minutes later the child choked and became cyanosed. I inserted an intubation tube. Patient breathed much easier but had a hacking strained irritating cough which was almost continuous for thirty minutes. I administered ten minims of paregoric. The child only coughed at intervals, but seemed to have much mucous in trachea. The patient expelled the tube at 3:00 a. m., twelve hours after its introduction. She had no further symptoms and was taken from the hospital to her home on the 30th. A report ten days later from the family physician told me that the child had had no further trouble.

This demonstrates how very easily one may make a mistake, and unless in a position to make a direct laryngoscopic examination it is often impossible to determine just what the trouble is.

Some time ago a pediatrician asked me to go to a residence and make a direct laryngoscopic examination where he suspected laryngeal diphtheria. I demurred thinking that it would be very difficult without proper assistance and proper equipment, which it is not easy to carry to a residence. However, with no assistance but the child's father and a small one cell battery I was surprised at how very easily I was able to inspect the interior of the larynx, and see a patch of mem-

brane just below the vocal cords on one side; this I reported and the child was given ten thousand units of antitoxin and made a very rapid recovery.

ACUTE OBSTRUCTION IN IN-INFANTS DUE TO INTUSSUSCEPTION

By ALBERT G. RUTHERFORD, M. D.
Welch, W. Va.

The following is an additional report of two cases of Intussusception, Ileo-cecal in type.

Case No. 1—R. R., male, age 18 months, admitted to hospital August 21st, 1924, with a diagnosis by family physician of Intussusception.

On admission patient's temperature by rectum was 99, pulse 110, respiration 22.

Child was crying with pain every few minutes. History obtained from mother showed that child's bowels had not moved for fourteen hours except for mucous and small quantity of blood.

On physical examination abdomen was found to be relaxed. A definite palpable mass was found in epigastrium. Considerable tympanites. Napkin stained with mucous and blood. A small enema was given to the child which returned clear except for considerable mucous and small amount of blood. The child was not prostated, and showed no signs of collapse. The pulse was of good volume and not rapid. The only findings that would lead one to make the diagnosis was the palpable tumor and the blood and mucous in the stool.

Operation: Right rectus incision. Light ether. A right rectus incision was made extending down below appendix region. On opening the peritoneal cavity a considerable amount of inflammatory fluid was found. Exploration revealed a sausage shaped mass in region of the Ileo-cecal valve. This mass was formed by a few inches of the ileum passing through the Ileo-cecal valve together with invagination of the colon. The obstruction was easily released and abdomen was closed without drainage.

One half hour after operation a small enema was given with effectual results. The child was immediately given half ounce of oil and put on the regular feeding.

The child made an uneventful recovery, and was discharged from the hospital in nine days.

Case No. 2—J. R., male, age 7 months. Referred to this hospital by family physician with a diagnosis of Intussusception. Entered hospital at 8 p. m. August 14, 1924. The following history was obtained: At 11 a. m. the patient was seized by severe abdominal pain. Commenced vomiting almost at once, and has continued up until admission at 8 p. m. Last bowel movement occurred at 10 a. m. Since then patient was given enemas and only blood and mucous was expelled.

Physical examination revealed the following positive findings: Prostrate individual, suffering collapse, no palpable pulse, respiration 40. Examination of the abdomen revealed marked pain in right upper quadrant; rigidity of right rectus muscle; distinct sausage shaped tumor was made out running transversely in upper right quadrant.

Operation: Right rectus incision. Chloroform. A right rectus incision was made. Exploration re-

vealed the following: The caecum was found invaginated into the colon, the invagination having proceeded as far as the transverse colon. The gut was injected, but not black. Tumor mass reduced by milking out the Intussusception. Abdomen closed without drainage.

One half hour after operation patient was given half ounce of oil, which was followed by an enema with effectual results. Child was immediately put to the breast every 3 hours.

The child made an uneventful recovery and was discharged from the hospital ten days after admission.

In the past four months we have admitted and operated on at Welch Hospital No. 1 three cases of Intussusception with no mortality. This appears to be good proof that once a diagnosis of acute Intussusception is made the case should be treated as a surgical case and not a medical case. In both of these cases the diagnostic findings were sausage shaped tumor in the abdomen together with blood and mucous in stool.

(The above reports were received too late to be included in the Doctor's paper in September issue.—Editor.)

ETHYLENE, ITS USEFULNESS AS A GENERAL ANAESTHETIC

By L. D. NORRIS, M. D.
Fairmont, W. Va.

Read Before Monongalia Medical Society, August, 1924.

During the past ten or fifteen years much attention has been devoted by medical men not only to further reduce mortality incident to the use of general anaesthetics but with improved apparatus and better technique to make anaesthesia more pleasant for the patient who has to undergo a surgical operation. That a good bit of post anaesthesia morbidity is preventable stands without question and the fact that a certain degree of success has been attained in this respect by those interested speaks well for the efforts.

In visiting the larger clinics, such as the Mayo Foundation, one is impressed with the fact that ether used is largely on the open mask, and it is in my opinion that after all is said and done that ether is still the most important anesthetic agent in use today. From the standpoint of relaxation and satisfaction to the operating personnel of a hospital, it stands alone. Ether, however, is not a perfect anesthetic by any means. From the patient's point of view it is probably the worst thing we can use. The odor is objectionable to the majority of patients, and the high morbidity rate following is certainly not pleasing to anyone, either patient or surgeon. This latter objection can to some extent be removed by giving a gastric lavage before the patient leaves the operating table, using warm tap water into which has been dissolved a small amount of bicarbonate of soda. This serves the double purpose of washing out and alkalinizing the stomach. I have not tried to figure up the percentage at Cook Hospital, but I believe the surgeons operating at that institution will bear me out in the statement that there has been a noticeable falling off of after-nausea and vomiting in cases where this is done. If ether is routinely preceded with something more pleasant, such as

gas-oxygen, until consciousness is lost and a routine gastric lavage done before patient leaves the table, it will become more acceptable.

From the patient's viewpoint nitrous oxid is the best thing we can use, because it is pleasant to take and there is little nausea following, but the surgical staff do not take gas- oxygen so kindly. Generally speaking it is not a satisfactory anesthetic for abdominal surgery, because of the failure in many instances to secure adequate muscular relaxation. If, however, ether is added in small quantities, we can usually get a relaxed musculature, but the objection to this procedure lies in the fact that we not infrequently employ nitrous oxid because ether is contra-indicated and even small amounts of the latter drug are not wanted.

Ethylene occupies a place midway between nitrous oxid and ether. It has many of the characteristics of the former, namely, not unpleasant to take, not toxic to the blood or body tissues and devoid of after-nausea. While ethylene does not give as profound relaxation as ether it is far superior to nitrous oxid in this respect and therein lies its chief advantage.

Ethylene, as unsaturated hydrocarbon, was discovered in 1795. Its chemical formula is C^2H^4. It is a colorless, inflammable gas with an odor comparable to old sorghum or wet matches or as described by some, it smells like garlic. It is made by allowing very small quantities of absolute ethyl alcohol to interact slowly with hot sulphuric acid, orthophosphoric acid, or even with kaolin. As a result of this interaction ethyl alcohol loses a molecule of water and ethylene gas is formed which, after proper washing and purifying, is stored in steel cylinders similar to the manner nitrous oxid is stored.

Ethylene has been used for a long time in commerce. It burns with an intense white and hot light and in many places is replacing acetylene in oxy-acetylene torches.

In the chemical industries, ethylene is used in the manufacture of ethylene dichloride, ethylene bromide and diethyl sulphate, which have their principal use in dye manufacture.

It is used in the large cities in about four per cent dilution to increase the candle power of artificial illuminating gas and indeed it was from this use of ethylene that the world really knows about it as an anesthetic. Early in 1908 carnation growers shipping their products into Chicago suffered severe losses because when the flowers were put in green houses they would fold their petals and die. The cause was not found until a gas leakage was discovered and the gas analyzed. It was found that one part of ethylene to one million parts of air was fatal to the life of a carnation. This started much scientific work and this was done to determine the relative toxicity of ethylene as compared to carbon monoxide. Experimenting with white mice, rabbits, dogs and guinea pigs, a great surprise was in store for these investigators for instead of finding ethylene a deadly poison, it was found to be an excellent and harmless anesthetic when given with sufficient oxygen to support life. We are indebted to Drs. Arno B. Luckhardt and Carter of University of Chicago for their painstaking care and their splendid scientific work for this new

anesthetic which they published first in the March 17th issue of the Journal of American Medical Association. One can readily appreciate the self sacrifice of these two men when they themselves tried it first, not knowing whether or not it was harmful to a human being.

Ethylene can be given with any of the number of gas machines on the market although for my own personal use I prefer a Gwathmey with separate valve for each cylinder. Like nitrous oxide it must be given with oxygen, the average percentages being ethylene eighty or eighty-five percent and oxygen fifteen or twenty percent. Cases vary as to their individual requirements. Induction if anything is more rapid and smoother than with nitrous oxide. Relaxation is usually brought about without cyanosis and the color throughout the anesthesia is excellent due to the high percentage of oxygen it is possible to maintain. I would describe this color as pink or even a cherry red in some cases.

Ethylene apparently does not injure the blood or any of the body organs. It does not enter into chemical combination with the hemoglobin, although probably, according to Luckhardt, it does exist in the blood in a state of physical solution but is soon given off when the anesthetic is stopped.

It has been reported that there is perhaps more hemorrhage during ethylene anesthesia than when other agents are used. That, however, has not been my experience. I have noticed no more bleeding than with ether or nitrous oxid, and I don't recall having heard any of our surgeons complain of this.

The recovery from ethylene-oxygen is a triumph in itself. It is not quite so rapid as when nitrous oxid is used, but most patients awaken on the table as though from a natural sleep. Sometimes there is a little gagging and ejection of watery material from the stomach. This is often so slight that the patient never remembers it. Nausea and vomiting in fact is usually conspicuous by its absence. When I visited these patients in their room or ward a half hour afterward, I was impressed with the truly wonderful manner that they reacted. I have never seen cases go through an operation with as little shock from both trauma or anesthesia as our ethylene cases.

Ethylene has a tendency to slow the pulse and respiration so one has to be a little careful as to the use of preliminary morphine. Most all of our cases had morphine and atropine, however, and I failed to notice any untoward results. This is probably due to the fact that I use nitrous oxid along with ethylene and oxygen. Some cases can be relaxed with a small amount of ethylene added to nitrous oxid and oxygen in the manner that we heretofore have used ether and when more relaxation is needed the nitrous oxid is stopped.

At Cook Hospital I have personally administered one hundred and thirty-seven anesthesias, using ethylene-oxygen and nitrous oxide in combination, a certain number of which I used ethylene oxygen alone. This list of operations includes everything from incising boils, splitting ear drums, amputation, major abdominal work of all kinds, appendectomies, salpingectomies, hysterectomies, radical breast amputations, perineorraphies, cervical repairs, and in fact everything except

work in the upper abdomen, ether usually being employed for its more dependable relaxation.

This work was done chiefly because I wanted to become acquainted with ethylene and study its peculiarities. I do not employ it routinely because there is the ever present danger of an explosion; indeed that is one serious disadvantage. The experts and chemists tell us however that ethylene is no more dangerous in this respect than any other inflamable gas or ether vapor would be when used with oxygen gas. Ethylene should never be used in the presence of an open flame or the cautery. If this precaution is observed I believe we are reasonably safe as far as explosions are concerned.

In closing this paper I wish to say that I believe ethylene is here to stay. It fills a very important gap between ether and nitrous oxide, and its chief usefulness will be in cases where ether is contraindicated.

A DIGEST OF CHANGES BETWEEN THE 1921 AND 1924 TAX LAWS

By H. ARCHIBALD HARRIS
Certified Public Accountant

The following digest has been compiled by W. M. Swindell, Jr., Economist, and Bertha M. Holmes, Washington manager, both of the staff of Archibald Harris and Company, under the direct supervision of Mr. Harris. Archibald Harris and Company are counselors on Accounting and Taxation for the Illinois, Indiana and Tenessee Bankers Associations. They also advise a number of industrial and professional organizations on accounting and tax matters.

Through a special arrangement with Archibald Harris and Company, Certified Public Accountants of Chicago, readers of this publication may obtain free tax or accounting advice on the new or old revenue bill. Readers may submit their inquiries to the magazine or to Archibald Harris and Company, Certified Public Accounts, Marquette Building, Chicago, Illinois. Please mention the name of this publication in writing direct to the author.

Income Tax changes are shown first because they affect most people and concerns, and are classified under "General," "Individual," "Corporations," and "Estates and Trusts." "General" covers changes applying to both corporations and individuals.

The Gift Tax, the Estate Tax and the Miscellaneous Taxes are all covered separately, under their own headings.

Sections used after paragraphs are sections of the 1924 law, except where otherwise stated.

In order to be brief only bare changes have been shown, with very little comment.

INCOME TAX—GENERAL

Administrative Provisions

If tax not more than $10.00 may be signed before two witness instead of under oath.—Section 1002 (c).

Collector may not grant thirty days extension for filing income tax return.—Section 1003.

Request for extensions of time for filing returns must be made before the time fixed by law for filing the return.

Assessment and Collection of Tax—Period of Limitation

Taxes for 1921 and subsequent years must be assessed within four years after return filed. No suit after such four years except in case of fraud.—Section 277 (a) (1).

Tax upon income received during life of a decedent shall be assessed and any proceeding in court for its collection shall be begun within one year after written request therefor (filed after the return is made) by the person representing the estate. —Section 277 (a) (2).

The Period of Limitation may be extended sixty days for assessment

of a deficiency if taxpayer does not file appeal with the Board of Tax Appeals or if appeal has been filed, the extension shall be the number of days between the date of the mailing of the notice and the date of final decision by the Board.—Section 277 (c).

Assessment and Final Determination

If tax has been paid without protest or abatement, credit or refund has been accepted and written agreement has been made between the Commissioner and the taxpayer, case shall be closed and not reopened even by suit, excepting in case of fraud or misrepresentation. —Section 1006 (a).

Board of Tax Appeals

Board consists of seven members (for two years after enactment of Act there may be as many as twenty-eight, in the discretion of the President).

Members shall be appointed by the President with advice and consent of Senate.

Terms of all members during first two years shall expire at end of that period.

Salary of members, $7,500.

Hearings before the Board shall be open to the public.

Findings in every case shall be made in writing and shall be published and sold in the same manner as any other public document. A copy shall be furnished the taxpayer.

If the tax controversy is more than $10,000, the oral testimony shall be reduced to writing and a written opinion shall be given in addition to the finding of facts and the decision.—Section 900.

Claims in Abatement

If a deficiency has been assessed without notice or within 60 days after notice or before the Board has reached decision even though the taxpayer has appealed, then abatement claim may be filed. Bond in twice the amount of the assessment shall be furnished. Commissioner shall by registered mail notify taxpayer of decision on the claim. Taxpayer has sixty days in which to appeal to Board of Tax Appeals. Amount disallowed is collectable on notice and demand. Court proceedings for amount allowed may be begun within one year even though time limit may have expired. Interest 6% on amount disallowed from the original notice after final decision, thereafter 12% until paid, except in case of estates of incompetent, deceased or insolvent person, rate is 6%.

No abatement claim may be filed except in the three cases above mentioned.—Section 279.

Credit for Taxes

Same as for 1921 except that the credit may, at the option of the taxpayer and irrespective of the method of accounting employed, be taken in the year in which the foreign taxes accrued; subject, however, to proper adjustment when the tax is finally paid. If taxpayer adopts this basis for claiming the credit, all future years must be handled in same manner.—Section 222 (c) and 238 (c).

Dates on Which Tax Shall be Paid

Commissioner may grant extension of time for payment of the tax or any installment not to exceed six months.—Section 270 (c) (1).

If extension for payment granted, interest at 6% shall run from original due date of the tax or the installment to date of payment.—Section 270 (c) (2).

No extension possible for payment of tax withheld at source.—Section 270 (d).

Deductions

No loss is allowed on a sale of stock or securities where within thirty days before or after the sale substantially identical property was purchased or contracted for. New Act does not say sale must be after passage of this act as in 1921 Act.

Deficiency in Tax

Taxpayer has sixty days in which to appeal to Board of Tax Appeal instead of thirty days as in 1921 Act.—Section 274 (a).

After appeal is considered by Board of Appeals, assessment shall be made and tax shall be paid on notice and demand. Assessment shall not be made of any part of a deficiency found by the Commissioner but disallowed by the Board. But, suit may be started without assessment. Court shall allow interest at 6%. Such suits shall be begun within one year after final decision of the Board—Section 274 (b).

If no appeal is filed in the sixty day period the deficiency shall be assessed and shall be payable upon notice and demand. — Section 274 (c).

If Commissioner believes delay dangerous, he shall assess the deficiency immediately. In such case, assessment may be made without notice or before the sixty day period has expired or before final decision of the Board. If such assessment is made and no claim in abatement is filed the deficiency shall be paid upon notice and demand.—Section 274 (d).

If deficeincy not paid in accordance with terms of extension, interest at 1% a month shall run from the time the tax was due under the extension to its payment.—Section 274 (g).

No 1% a month interest for negligence as in 1921. Only 5% flat.—Section 275 (a).

Delinquency—Additions to the Tax in Case of—

Where tax computed by the taxpayer is not paid at prescribed time it bears interest at 1% a month instead of 5% plus 1% a month from notice and demand as under 1921. —Section 276 (a) (1).

If extension of time for payment is granted and tax or interest thereon is not paid in full before the expiration of the extension then, instead of 6% interest shall be 12%. —Section 276 (a) (2).

Where a deficiency or interest or penalties are not paid within ten days after notice and demand, interest runs at 1% a month from time of the notice and demand. (No 5% as in 1921.) If deficiency allocated to installments is not paid when installment is due, interest runs from date of installment.—Section 276 (b).

Estate of incompetents, deceased or insolvent persons shall pay interest at 6% in lieu of 12%.—Section 276 (c).

If claim in abatement is filed interest provided by Section 276 shall not apply.—Section 276 (d).

Dividends—Liquidating

In case a corporation pays a partial liquidating dividend it shall not claim that its earnings were taken up by the nontaxable part of such liquidating dividends, and reduced for the purpose of determining the taxability of future distribution of the company.

Amounts distributed in partial liquidation are defined as a distribution by a corporation in complete cancellation or redemption of a part of its stock or one of a series of distributions in complete cancellation or redemption of all or a portion of its stock.—Section 201 (g).

ANNOUNCEMENTS AND COMMUNICATIONS

August 20th, 1924.

Dear Sir:—

The Ohio County Medical Society has appointed the undersigned committee to ascertain from our candidates for the State Legislature, their position in regard to certain matters which will probably be brought before the next session of the Legislature.

It is the purpose of our County and State Medical Societies to attempt to protect the general public, by endorsing the Medical Practice Act, and requesting its enforcement. This Act requires that anyone who attempts to treat the sick must present evidence of adequate preliminary education, and in the fundamental branches of medicine, Anatomy, Histology, Pathology, Physiology and Bacteriology. The organized medical profession intends to support those candidates who are in favor of maintaining these standard requirements for all who propose to treat the sick.

We would like to know where you stand, in order that we may report back to our fellow members. Will you kindly answer the questions enclosed with a "Yes" or "No?" If you do not favor us with an answer, we shall interpret your silence to mean that we cannot count upon your support.

Trusting that you will see fit to answer these questions at once, and return this letter in the enclosed stamped envelope, we are,

Yours sincerely,

W. H. McLAIN,
D. A. MacGREGOR,
H. M. HALL,
Committee.

Questionnaire

1. Are you in favor of the Medical Practice Act which requires that all persons who propose to treat disease shall have a thorough knowledge of the fundamental branches of medicine: namely, Anatomy, Pathology, Histology, Physiology and Bacteriology?

2. Do you believe that the Chiropractors should be recognized under the law and licensed to treat the sick?

3. If the Chiropractors are recognized under the law, should they be required to give evidence of suitable preliminary education, and be required to pass an examination in the fundamental branches of medicine (Pathology, Anatomy, Histology, Physiology and Bacteriology) before the Public Health Council of West Virginia, as is required of applicants to practice regular medicine?

Kansas City, Mo.,
August 30, 1924.

JAMES R. BLOSS, M. D., Editor,
Huntington, W. Va.

Dear Doctor:

A nation wide movement for improved conditions in maternal welfare is being inaugurated through the combined efforts of a joint committee representing the American Gynecological Society, the American Child Health Association, and the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons.

An appeal is being made to the secretaries of the State Medical Associations to enlist the co-operation of their members and also of the constituent county medical societies to stress the subject of obstetrics in the programs of their meetings and try to have more papers and discussions on the topics vital to this most essential branch of our work.

The reason for the propaganda is that recent statistics are published showing a deplorably high mortality in maternity work in our country. A Washington report gives the United States the unenviable position of third from the highest death rate in both sepsis and eclampsia among the seventeen civilized nations of the world. These two accidents are almost absolutely preventable. Among the reports from sections where pre-natal care is taught and where aseptic care observed in labor the mortality is reduced one third to one half the average in the same region.

So many other features while not so tragic demand reform in obstetrics that the committee hopes within five years that not only the mortality of mothers and children may be reduced just as the profession has cut down the death rate in typhoid fever, tuberculosis and diphtheria in recent decades, but also that obstetrics may be again placed on the plane with internal medicine and surgery, a dignity which it formerly occupied in the colleges and in the profession, as one of the three great branches of the healing art.

This is a work of education, and it demands the co-operation of teachers and specialists in obstetrics, general practitioners, nurses, and the general public, to accomplish so ambitious a program.

A copy of the Annual Report to the American Associaiton of Obstetricians, Gynecologists, and Abdominal Surgeons is sent under separate cover detailing some of the conditions found and showing the more hopeful outlook for the future.

(Signed)

Fred L. Adair, M. D.,
Minneapolis

Henry Schwarz, M. D.,
St. Louis

Robert L. DeNormandie, M. D.,
Boston

Geo. W. Kosmak, M. D.,
New York

Frank W. Lynch, M. D.,
San Francisco

Ralph W. Lobenstine, M. D.
New York

Wm. Clark Danforth, M. D.,
Evanston, Ill.

Geo. Clark Mosher, M. D.,
Kansas City, Mo.

Will you lend the invaluable aid of your columns to forward this movement?

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, Huntington - Editor-in-Chief

WALTER E. VEST, Huntington
C. A. RAY, Charleston
HARRY M. HALL, Wheeling
} Associate Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

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Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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DELEGATE TO A. M. A. 1923-1924: Dr. Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

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SIXTH DISTRICT: C. A. Ray, Charleston, two-year term; B. B. Wheeler, Beckley, one-year term.

OUR EXECUTIVE SECRETARY

The committee appointed by the Council, at the last annual meeting, to secure some man for this position, met in Huntington early in September.

Since the close of the Wheeling session the various members had been on the hunt for someone qualified by training and experience to take up this work.

There were a number of applicants. The committee carefully considered each of them in the light of all information obtainable regarding their qualifications for this particular work.

The result was the selection of Mr. Sterritt O. Neale.

Mr. Neale is a newspaper man of quite broad training and experience. He has ability as an organizer.

The committee feels that it has been fortunate to secure the services of a man so highly recommended.

The executive officer will be very largely occupied this coming year

with the task of organizing the work of the association. It will be a new field to him, just as an Executive Secretary is a new experience for us. The experience of other State organizations has been most gratifying when a full-time man has been employed.

Upon the co-operation of the individual members and the component societies depends to a very great extent the success of the work. We can not expect him to accomplish a miracle unless all of us give him whole-hearted support.

We feel that the West Virginia Medical Association is entering upon an era of great accomplishments. The future holds everything for us if we but all pull together. We have planned plans and dreamed dreams a nd seen visions. Let us each one help them to come true.

A QUESTIONNAIRE—TABULATION OF REPLIES

You are asked first to turn to the Announcement and Communication section. There you will find a letter sent by the committee appointed from the Ohio County Medical Society, to the candidates in their district for the Legislature, both House and Senate, to be voted upon in November.

This questionnaire and the letter of transmissal should be read with interest by the members of each county society. It is certainly clear, well defined and fair.

The replies are interesting. The letters were sent to eleven candidates. Of these eight had, up to the time this was written, made answer. Three refused to, or at least had not answered.

Of the eight replying two (attorneys) equivocated or straddled the question. This leaves six of the eleven candidates possessing enough courage to answer frankly and squarely, giving their opinions on these three questions.

All six of those answering replied "Yes" to the first question. That is that ALL persons who propose to treat disease shall have a thorough knowledge of the fundamental branches of medicine.

Replying to the second question one man voted "Yes" and five "No." Two of the five voting "No," made an additional statement that if the Chiropractors met the requirements of question one they should be licensed. One of these two is a physician. Our personal opinion on this point is that of the two just mentioned. If Chiropractors or any other class can meet the fundamental requirements of the State Board of Health, they should be licensed. One of the weak points in our defense of the Medical Practice Act has been on this question. We should recognize the fairness of this contention. If a man is thoroughly trained in the fundamental branches of the healing art we can not say to him "Thou shalt," or "Thou shalt not, give this or do that or the other." A farmer, a laborer, a traveling salesman, cannot secure a thorough knowledge of these fundamentals by either a correspondence or personal attendance course of six or twelve or eighteen months.

When the courageous six came to question three there was an absolute unanimity of the vote. All frankly and firmly stated "Yes." There were no ifs or ands about it. None made any comment.

The committee has probably reported to the society as a whole by now. It is to be hoped that these men will be given the support of the Ohio County Medical Society. We do not know their political affiliations. They give evidence, in their replies, of being big enough to "not play politics" when the welfare of their fellow citizens is in the balance. We feel that they would be big enough to trust with the other momentous questions presented to them which concern the State of West Virginia as a whole. Men who place the welfare of the lives of their fellow citizens first can be trusted otherwise, we think. If their daily lives and past services do not bear out this opinion they have either seen the light of justice—to the Chiropractors, the medical profession, or their fellowmen —or they are most arrant humbugs.

In this connection it is refreshing to note the very clean cut action of the Lewis County Medical Society, as reported in the minutes of their last meeting, in openly endorsing a man's candidacy and, by resolution as a body, committing themselves to his support.

It is to be hoped that the officers and members of the various local societies will read of the action of the Ohio County Society and take similar action. You have a month in which to work. Bear in mind that this will make the labors of our Committee on Public Policy and Legislation much easier. They will have the statements of the members of the Legislature as to their opinion on these vital questions. The editor is returning to the Ohio County Society the replies received by them. He feels sure these replies will be sent to the Executive Secretary of the West Virginia Medical Association for the use of the committee during the next session of the Legislature.

ANOTHER S. O. S.

In our last issue we sent out an appeal to all ex-presidents to join with us in promoting the welfare of the Association and enlarging the Journal. Now, we are appealing to the younger men of the profession. Our knowledge of the high standard of young doctors of West Virginia justifies our prediction that the West Virginia Medical Journal would become widely known and sought after outside of our State, if all the capable young men will donate some of their time, knowledge and experience toward raising its standard.

The editor and his staff are charged with the responsibility of making this periodical represent the profession of West Virginia as a whole and they can accomplish this end only by having the cooperation of each individual in the state. They are not the kind who would "pass the buck," but would ask a hand in lifting a heavy load. All the "fellows" like to know what the other "fellows" are doing, and we will be glad to publish all the news items and society reports that we can get. Your papers and case reports will help to make up the scientific columns and this is what we most desire. We have never been forced to buy bread and could always swipe a watermelon in season, but for the intellectual support of the young physicians of West Virginia in this undertaking, we are about ready to offer supplications.

Get the habit of writing something for us. After the ice is broken, and you have reported a few cases, you will be surprised how the habit will grow. If the Journal is to be rejuvenated, it must be transfused with new blood, so, if you write us who you are, where you are, and what you are doing, we will see that your name and fame will not suffocate in a pigeon hole. —C. A. R.

SOCIAL HYGIENE

Within the past several months there has been a developing interest from all sections of the State in social hygiene, one of the results of which has been an increasing demand for text and books of reference. In order to meet these requests, the Bureau of Venereal Diseases has prepared a bibliography. Every book listed is written by an authority on the subject and endorsed by the State Health Department.

The Bureau is to be congratulated upon the completeness of this bibliography. Those interested in this question can secure copies by addressing the Bureau of Venereal Diseases, State Department of Health, Charleston, W. Va.

STATE AND GENERAL NEWS

LEWIS COUNTY NOTES

GUY R. POST, Reporter

Dr. S. H. Burton and wife have returned from a ten days' visit with relatives near Staunton, Va.

Dr. M. A. Blankenhorn, senior instructor in medicine, Western Reserve Medical School, and assistant visiting physician to Lakeside Hospital, concluded the post-graduate coure in internal medicine at Weston, W. Va., Thursday, August 7th, 1924.

Dr. O. L. Hudkins and wife spent their vacation in Atlantic City and other eastern cities.

Dr. G. M. Burton spent a week's vacation at Webster Springs.

Dr. W. P. King, wife and son have returned from a six weeks' vacation spent in Denver, Colo., and other western cities including Chicago.

Dr. C. Henderson Becken of St. Louis, Mo., has been appointed assistant at the Weston State Hospital to fill the place made vacant by the resignation of Dr. J. G. Pettit to become superintendent of the State Tuberculosis Sanatarium at Hopemont, W. Va.

Dr. S. H. Burton is at Hopemont, W. Va., doing some nose and throat work at the West Virginia State Tuberculosis Sanatarium.

MARION COUNTY NOTES

C. L. HOLLAND, Reporter

Dr. E. F. Sheppard, surgeon at the Fairmont State hospital, was called to Welch on account of his sister being injured in a railroad wreck. There were no details of the accident in the message that Dr. Sheppard received.

A dinner party of delightful appointments was given by Dr. and Mrs. Luther Davis at the Fairmont hotel honoring their guests, Dr. and Mrs. M. P. Ravenel, of Columbia, Mo., and Mrs. Norman Sturgess, of Philadelphia, sister of Mrs. Davis. The guests numbered about thirty including members of the local medical fraternity, nursing profession and wives of the physicians. Covers were laid for Dr. and Mrs. Ravenel, Dr. and Mrs. C. L. Holland, Dr. and Mrs. C. W. Waddell, Dr.

and Mrs. C. M. Ramage, Dr. and Mrs. G. H. Brownfield, Dr. and Mrs. E. P. Smith, Dr. and Mrs. A. J. St. Lawrence, Dr. and Mrs. L. D. Howard, Dr. and Mrs. Carter S. Fleming, Dr. and Mrs. H. R. Johnson, Dr. W. J. Leahy, the latter of Mannington, Dr. Herschel Yost, Miss Margaret Leatham, Miss Ada Hemsley, Miss Elizabeth Hazen, Dr. and Mrs. Davis.

Dr. C. O. Henry, superintendent of Fairmont State Hospital, was in Huntington attending the Republican state convention.

Dr. C. L. Kinney and family recently returned from a trip to Niagara Falls and points in Canada.

Dr. and Mrs. L. S. Smith and family, who have been visiting at the former's home in Windsor, Vt., returned home after spending a very enjoyable vacation trip extending over a period of about two weeks. While away they visited a number of points of interest, among them being the old homestead of President Calvin Coolidge. During Dr. Smith's absence, Dr. James A. Reidy has been looking after his practice.

Dr. and Mrs. J. H. Bouleware left for a motor trip to Hampton, Va., where the former will attend the National Medical Association meeting in session there this month. After attending the medical meeting they will make an extended trip to the East and South, visiting Durham, N. C., and Columbia, S. C. Dr. Bouleware will return to Fairmont to resume his practice about September 1.

Dr. and Mrs. L. D. Howard have returned from Mountain Lake Park, Md., where they were guests at Ethelhurst, the summer home of the Rev. and Mrs. W. D. Reed.

Dr. Wm. C. Ogden, of Fairmont, W. Va., died recently in the John Hopkins Hospital in Baltimore, where he had been a patient for two months, endeavoring to regain his health. At times it was reported that his symptoms were favorable, but recently his condition grew gradually worse and little hopes were entertained for his recovery.

Dr. Ogden was the son of the late P. B. Ogden. He was born and spent the greater portion of his life in Fairmont and vicinities.

Funeral services were held from the First Baptist Church, Fairmont, Rev. W. J. Eddy officiating, assisted by the Rev. Drs. J. C. Bloomfield, of the Methodist Protestant Temple and H. G. Stoetzer, pastor of the First Presbyterian church.

The pallbearers were Dr. C. O. Henry, Dr. C. W. Waddell, Dr. C. C. Rammage, M. W. Ogden, Glen F. Barnes and E. F. Hartley.

CABELL COUNTY NOTES

Dr. R. J. Wilkinson and family of Huntington spent several days in Oak Hill attending the Fayette County Fair.

Dr. A. J. Sweezey, eye, ear and throat specialist of Huntington, is quite ill at the Kessler-Hatfield Hospital, where he was recently operated on.

Dr. A. J. Watts recently entertained at dinner Drs. A. K. and Donald Kessler, W. E. Vest, R. J. Wilkinson, F. O. Marple, I. C. Hicks, R. M. Bobbitt, J. C. Matthews, J. R. Bloss and Mr. Hans Watts.

OHIO COUNTY NOTES

HARRY HALL, Reporter

Loeb and Leopold were saved. That is their lives were saved. Clarence Darrow will receive a very large sum of money for saving these lives. We have understood he has said he will leave it to the Bar Association to decide. We don't know whether he has received any previously or not. What we digress to this matter for is that we are again thinking of the Schwinn-Habig case here when the lawyers were scandalized because Dr. Schwinn asked $7,500 for saving a life in a situation just a complicated for the science of medicine as Darrow had in Chicago (minus the wide publicity, which has no bearing on the essentials) with the science of law. We take luncheon once in a while with a dozen or so men, among whom is a very capable lawyer. We have gone into these matters with him (he is a near scientist). Especially have we asked him what he thought of the admissions the lawyers made in London recently, that their profession needed a general housecleaning. He admitted it. He also came back with the idea that the profession of medicine could houseclean in its department of alienists and fantasy readers—which we had to admit. Why is it then that here is a profession musty with age, full of cobwebs of precedent, and smelling of the grossest kind of trickery, which can have one of its members save a couple of criminals from the gallows, and earn more than the five leading surgeons of most American cities can saving innumerable lives of innocent people in a whole year?

Once again would you trust the making of your fee to the Medical Association of your city? We believe you could in most of them.

The staff of the Ohio Valley General Hospital met September 9th. Dr. Reed was elected President, Dr. John Gilmore, Secretary. A big turnout resembling a small medical society was present. A paper was read on the political aspect at Charleston as it might affect hospital staffs. A good year is anticipated.

Dr. Earl Glass spent his vacation up in New England. Next to Canada, previously mentioned, this was a favorite location for Wheelingites. Dr. Edward Phillips and family also went up there. The writer and his family also frequented this region. Adding up the loose change made this the better way as against the Yellowstone for us, although you can certainly spend it East as well as West—if you have it. Dr. Caldwell we understand went out in God's open country. We can picture Caldwell going down the path at Bright Angel Trail. Caldwell is, we think, a handsome man, while Irving Cobb, we think, is not. Yet in a silhouetet or shadow picture looking from the back the effect might be the same, especially on the patient donkey, or whatever you call them.

Dr. Elizabeth Keay visited her brother whom she has not seen for years, up in Michigan. We don't believe the Doctor crossed to Canada for fish or moose.

Dr. W. S. Fulton with some Ohio doctors is up in Canada hunting moose. Drinkhard, lately from Canada, fished but did not "moose," or whatever you call it. We understand this perfectly. In the National Museum recently we saw stuffed moose. As far as we are

concerned they have it on a giraffe for size. Neither the writer nor fellows like Drinkhard can look into the whites of their eyes. A great big tall "white hope" like Fulton merely has to stand on a log and of course has the advantage of the animal both as to voice and position. One awful thing about moosing they tell us is that, unlike fish, they are difficult to buy in the stores in case you want to show your friends specimens on your return.

We have a couple of kodak pictures of Dr. Frank Hupp with the fish right in his hands on the lake. These are described as trout. If so we would hate to meet some other varieties up that way—six pounds and measured about 25 inches. Consider the fight even with six pounds. So we again come back to the fact that although Dr. Hupp has always taken good long vacations and perhaps missed some cases at home, yet he is still able to land six pound trout, and some who were always toiling upward in the night do not answer the roll call.

Dr. Jones is going up into Canada. If anyone ever deserved a vacation it is Dr. A. L. Jones. Quiet, reserved and with no press agents he has succeeded in gaining the confidence of his fellows and the public. He is successful. But that is not why he deserves it. Dr. Jones conducts the Wheeling Venereal Clinic, and made of it a dignified and successful venture. In two ordinary sized rooms, he has with Mrs. Harriet Barry, nurse in charge of the Ohio Valley General Hospital, carried out the strict venereal measures demanded by Dr. W. H. McLain, health officer. No small task. He has kept it as far as possible from interfering with the work of the profession—no small task either. We hope he has as successful a vacation.

Dr. and Mrs. Harry Nolte spent their vacation at Atlantic City. The Doctor began his work over one year ago in Beech Bottom near Wheeling, and has been quite successful.

Dr. Charles Keesor and family went as usual to Cedar Point on Lake Erie. We have tried to have the Doctor say what particular attraction is here to make him return year after year. All he says is that "it is a good reliable place. As we've been caught a couple of times we can understand why he sticks to a good one.

Dr. Peddicord of Elm Grove spent his vacation in the Shenandoah Valley, running over to Philadelphia and showing the younger generation Washington.

This brings us to another man in Elm Grove—Dr. Ruble, who while coming away from a confinement case early in the morning, stepped off a porch from the second story, falling to the ground. He suffered from shock and also a severe and serious fracture of the humerus, with a sub-coracoid dislocation. Operation was performed by Dr. Reed and Dr. Drinkhard this Thursday morning. The doctor has our sincere sympathy.

Dr. Snyder spent his in New York City.

Dr. Sammons will go to Cleveland where, in addition to having a good time, he will visit all the hospitals as also the proceedings current at Western Reserve University.

Dr. Klug went to the Lakes.

Dr. Dalby, Eastward.

Dr. John Marschner with his wife, who splendidly recovered from her operation, have gone to the Lakes.

Dr. Goodwin goes to Atlantic City.

Dr. A. J. Moore goes to Atlantic City and later to the meeting of the American College of Surgeons, of which he is a member.

Dr. Arthur H. Hoge returned from Vienna last week. We learn, little by little, this is a great place. No fish, no bathing, no wild animals, but—it is too long—still Paris evidently is not all there is to this fickle world.

Dr. Edward L. Kaufman will also leave us for a little while. He also seeks the water—the sea of matrimony. Miss Angela DeChantal Coniff will go with him—shall we say to sail the boat?. Here we have another handsome couple. Edward could go into the movies and give Adolphe Menjou or Lew Cody a good run. They all have the same kind of a moustache. There the resemblance stops. Miss Coniff is the daughter of Judge J. J. Coniff, and her mother is the sister of Mrs. Dr. Atwood Haning. As you can understand from the liberty we have taken with his venture, Edward Kaufman is a good all-around likeable fellow, and one of the "good sports" you can easily and cheerfully give a good hearty hand shake and slap on the back and sincerely wish him well. However, condolences are also in order—Kaufman tells me confidentially and nervously it is to be a church wedding next month.

The news of the day is ever full of matrimonial events and high pressure romances. We see many moving pictures and plays of love distraught and men and women plunging down chasms, fighting off unendurable villains, boarding fast moving trains and then defeated and distracted in the end, that the nice every day good romance and wedding does not have its proper appeal. However, they are far more interesting and surely more to be thought of than the others. Now here is our own Dr. Charles Wingerter ever a target with Mr. George Baird of this city as Wheeling's 100% bachelors by the daily newspapers when discussing marriage. Time and again I have seen their names — on a certain day in August, about the 14th, he betakes himself with that sly old conspirator Dr. A. J. Noome as his chief supporter, and marries Mrs. Clara Fleishman of Brookside, Ohio, whose husband died gallantly in the late war. We may be old and unromantic as far as youth is concerned but this has all the big events of drama to us. Here is our Doctor Charles, upon whom fame and power and worldly goods had rested and comfortably fixed as well. He has stood off and observed life, dealing with the most disheartening side of humanity, nervous disease. He has perhaps had much to make him doubt much. He is seasoned in the world's distractions, and yet finally, through it all, with a quickness and celerity, he concluded marriage was best. No tragic impetuosity of Romeo and Juliet; no wandering aimlessly around as in "As You Like It," but a simple decision that the better way is to have a woman to see with you the mysteries of life. Next time your domestic troubles get up to a four plus, and you look out through

the wind shield and wish you were single again, don't forget Wingerter who was ever a teacher. They have gone to Mt. Chateau.

We have made a discovery. Do not ask us how because we could not prove it. With all our little differences, our conflicts at State meetings, our little local quarrels, it has come to us through hearing from many sources that the doctors of this State are in Class "A" as far as dealing justly with each other is concerned. This does not mean that we are spineless. The State Society has to have Dr. Butt as necessarily as the body does its suprarenals—to keep up its pressure. But all the same it is believed we are helping to set the pace in good feeling.

North Wheeling Hospital is putting in a new operating room. This is especially equipped for nose and throat work, and is much larger than the one it replaces.

Dr. A. V. McCoy Poem is father of a new boy.

Dr. Bippus is President of staff of North Wheeling Hospital, Dr. O. D. McCoy is Secretary. One thing particularly to be observed about this staff is the discipline. If you purposely omit three meetings you are dropped. It is enforced, and because of it they don't have any enforcing to do.

The coming season opens on October 10th. Dr. Wells Teachnor of Columbus opens the winter program on "Rectal Diseases." The program is full up until February. It includes Crile, Babcock, McGlanahan of Baltimore, Stewart, Croti, Chalfonte of Pittsburgh and many others. The new officers evidently mean to make it a great and glorious season.

A NEW CHAIR AT JEFFERSON MEDICAL COLLEGE

In recognition of the far reaching developments of bronchoscopy in the diagnosis and treatment of diseases of the lungs and of esophagoscopy and gastroscopy in the diagnosis and treatment of diseases of the esophagus and stomach, the Board of Trustees and Faculty of The Jefferson Medical College have created a new chair to be known as the Department of Bronchoscopy and Esophagoscopy. Dr. Chevalier Jackson, formerly Professor of laryngology in The Jefferson, has been elected to the professorship of the new department. Dr. Fielding O. Lewis has been elected to fill the chair of laryngology vacated by Dr. Jackson.

COUNTY SOCIETY REPORTS

LEWIS COUNTY SOCIETY

The Lewis County Medical Society met in regular session at the Weston State Hospital, Tuesday, September 6th, 1924, with Dr. W. H. Green, President, in the chair.

The minutes of the previous meeting were read and approved.

Under unfinished business the Secretary read a communication from Mr. Ira E. Smith, the Republican nominee for State Senator, of West Union, W. Va., in which he expressed himself candidly against the passage of the Chiropractic Bill.

The report of the committee on the standing of the nominees for the House of Delegates in regard to the Chiropractic Bill was made by Dr. M. D. Cure, chairman. Dr. Cure reported that members of the committee had interviewed Mr. J.

W. Hall that the Secretary be authorized to write Mr. Lloyd Rinehart to the effect of Dr. Burton's suggestion. Dr. O. L. Hudkins seconded Dr. Hall's motion. The motion carried unanimously.

Those present were Drs. Denham, Hall, Greene, S. H. Burton, Snyder, Cure, Hudkins and Post.

The society was then adjourned.

GUY R. POST, M. D., Secy.

Review—The Treatment of the Common Disorders of Digestion, by John L. Kantor, Ph.D., M. D., Chief in Gastrointestinal Disease, Vanderbilt Clinic, Columbia University. A volume of 245 pages with 64 full page illustrations. Price $4.75. Published by the C. V. Mosby Co., St. Louis, Mo.

What makes the book of exceptional value is that while the different disorders of the digestive tract are treated in a thoroughly scientific manner, the method of

treatment and the technique is very simple, and will appeal to the physician with limited equipment as strongly as those who have access to hospital service. It encourages confidence that every stomach disorder need not be referred to a specialist. In fact the treatment after the condition has been diagnosed consists primarily in hygiene and diet.

This book should appeal to the general practitioner, and those who are instructing students of medicine.—John N. Simpson, Prof. Medicine and Dean W. Va. University School of Medicine.

MEDICINE AND SURGERY

ABSTRACTS FROM THE JOUR. OF LABORATORY AND CLINICAL MEDICINE, AUG. 1924, C. V. MOSBY CO., ST. LOUIS.

Kidney Involvement From Prostatic Hypertrophy; A New Theory of Explanation, by A. D. Bush, Emory University, Ga.

Following many experiments, many of which required much patience, the author arrived at certain conclusions which may be briefly summarized.

A rather widespread opinion exists that kidney involvement accompanying prostatic hypertrophy is due to back pressure from the bladder through the ureters.

Physiologists very generally deny the possibility of such a reflux under normal conditions. Experiments on dogs, whose vesical architecture is very similar to that of man, with the object of obtaining a reflux if reasonably probable, yielded no refluxes even under excessive intravesical pressures.

Embryological studies show a closely related origin of the nephritic tissue and vesical trigone. Clinical data show a closely coordinated innervation of kidney, ureter, and trigone, as indicated by the similarity of referred tenderness and pain in acute congestions and inflammation of these several viscera. The close adhesion of the trigonal tissue to the underlying prostate involves this portion of the bladder in disorders of the prostate.

Experimental data indicates that electric stimulation of the proximal end of the cut hypogastric nerve affects the fundamental activity of the kidney.

From these several findings the conclusion is drawn that uncomplicated kidney dysfunction, accompanying prostatic hypertrophy, is a condition primarily due to neural reflexes coming from the area of the trigone by way of the hypogastric afferents, and then out through the eleventh and twelfth thoracic autonomics to the kidneys.—F. C. Hodges.

July 1, 1924—At a recent meeting of the American Society of Clinical Pathologists it was decided to make the Journal of Laboratory and Clinical Medicine the official publication for articles emanating from its members. In an editorial in that Journal entitled "Clinical Pathology," Dr. Warren T. Vaughan makes the following comments:

"Clinical pathology has developed from the routine examination of the blood, urine, feces, gastric contents, etc., to a much more highly technical and exact science requiring the work of skilled individuals with adequate knowledge and experience in the various fundamental medical sciences. While well trained

technicians can perform the various procedures, few of them are qualified to efficiently carry out all the tests in each subdivision of clinical pathology, such as pathology, bacteriology, immunology, and biochemistry, and it is doubtful whether any have received adequate training to enable them to properly interpret all findings. For correct interpretation and particularly for authoritative application to the individual case, there can be no doubt that one who has received a general medical education is best fitted. Even such are not usually equally efficient in all the subdivisions.

"The American College of Surgeons has undertaken various lines of endeavor, not the least important among which is its work in the standardization of hospitals. The American Society of Clinical Pathologists has inaugurated an equally laudable program for the standardization of their portion of work in the hospitals and in clinical laboratories elsewhere. In both cases the so-called standardization is not merely a standardization but more accurately an elevation of existing standards. While much is to be accomplished with regard to the administration of the clinical laboratory and its relationship to the various other specialties, we feel that the Society has proceeded wisely in limiting its first endeavor as brought out in the report of its transactions, to the standardization of laboratory methods, to adjustment primarily of its own intramural activities.

"The clinical pathologist is the connecting link between the laboratory and the clinician. One of the primary aims of the Journal as has been emphasized from time to time is the exercise of a similar laison as a scientific periodical." — F. C. Hodges.

JACK-KNIFE POSITION AFTER HERNIA OPERATIONS

The posture of the patient after an operation for hernia is usually neglected. If surgeons realized that they could reduce their recurrences materially, besides adding to the comfort of their patients, the jack-knife position would become a matter of routine for inguinal, femoral, umbilical and ventral hernias which presented difficulties in closing the fascial layers.

In inguinal hernia operations the best exposure is obtained by keeping the thigh extended until the deep sutures are ready to be tied, when it should be elevated, adducted and rotated inward. This reduces the distance between Poupart's ligament, the internal oblique and conjoined tendon from 25 to 50 per cent, depending on the size of the opening, the variety of hernia, and the development of the muscles. After the patient is returned to bed his knees and shoulders should be elevated 25 to 45 degrees by means of pillows and a back rest. This position takes the strain off of the stitches during the process of repair, permits a broad firm union of fascial flaps, and reduces the percentage of recurrences. The jack-knife posture should be maintained as long as the patient stays in bed.—Leigh F. Watson, Annals of Surgery, August, 1924, lxxx, p. 239-241.

PARAFFINOMA OF THE VAS DEFERENS

The author reports an unusual complication following the paraffin injection of an inguinal hernia by

a charlatan. The hernia promptly recurred and the cord and testicle on the side treated became swollen, painful and tender on pressure. At operation paraffin masses were removed from the internal oblique muscle, the conjoined tendon, and the vas deferens. The vas was occluded and it was necessary to resect it and anastomose the ends.

Because of the high percentage of recurrence following operations for "paraffin hernia," the regular Bassini operation was combined with the author's method of lateral displacement of the cord. With the cord displaced on to the internal oblique, ½ inch to the inner side of the deep suture line, the overlapped fascial flaps were securely stitched to the deep suture line to reenforce the weak spots, the usual points of recurrence—the internal ring, the lower end of the incision over the pubic bone, and the line of deep sutures.

The serious accidents that sometimes follow paraffin injections of hernia are: Gangrene of the skin; injection of cord structures; wounding of intestine, appendix, or bladder with the needle; injection into blood vessels, followed by pulmonary or cerebral embolism or sudden blindness from plugging of the artery of the retina, and occlusion of the iliac or femoral artery, with gangrene of the extremity necessitating amputation.—Leigh F. Watson: Journal of the American Medical Association, 1924, lxxxii, June 14, p. 1935-1936.

GASTROINTESTINAL SYMPTOMS AND EPIGASTRIC HERNIA

Hernia in the linea alba has often been confused with gastric and duodenal ulcer, and sometimes the two conditions exist at the same time. The presence of a tumor or slitlike opening in the linea alba, with or without the protrusion of a small mass on coughing, will help to establish a diagnosis of hernia.

In ulcer the symptoms come on at a certain interval after eating, while in hernia the paroxysmal attacks have no relation to meals but usually follow physical exertion, and the patient finds the most relief is secured by assuming a doubled up position, which relaxes the linea alba—when the omentum slips back into the abdominal cavity the pain disappears. Epigastric hernia must also be distinguished from cholelithiasis, cholecystitis, gastralgia, gastritis, carcinoma, sarcoma, appendicitis, nephrolithiasis, abscess or tumor of the abdominal wall, and the gastric crises of tabes. —Leigh F. Watson: New York Medical Journal and Record, April 16, 1924.

RELATIONSHIP BETWEEN CERTAIN PRODUCTS OF METABOLISM AND ARTERIAL HYPERTENSION.

Beginning with the assumption that some protein body, a product of metabolism, had a pressor effect, Ralph H. Major, Kansas City, Kan. (Journal A. M. A., July 12, 1924), investigated the properties of some of the better known metabolites. A series of experiments showed that urea, uric acid, creatin and creatinin had no constant effect on the blood pressure, but another group of experiments showed that the guanidine bases have a very powerful pressor effect. In his experiments he has used methylguanidin sulphate, methylguanidin nitrate, dimethylguanidin sulphate, guani-

din carbonate, guanidin thiocyanate and guanidin hydrochlorid. All these compounds show a very striking ability to raise the blood pressure and to maintain it at a high level. The blood pressure in dogs is often doubled or even tripled within a few minutes after the intravenous or intramuscular injection of from 0.1 to 0.2 gm. of methyl-guanidin sulphate per kilogram of body weight, this high pressure persisting often from four to five hours. This marked pressor effect is not an inconstant finding obtained only under the most favorable conditions, but has been noted in every one of more than fifty experiments. In addition to these effects on the blood pressure, the guanidin compounds also produce a marked decrease in the respiratory rate and a slowing of the pulse, with an increase in the amplitude of the heart beat. When toxic doses are given, the blood pressure, after a preliminary sharp rise, often falls, the respiration may be paralyzed, and the heart beat usually becomes extremely irregular. Major has studied some of the features of the mechanism by which this high blood pressure is produced. Section of the vagi after injection of the guanidin compounds produces no effect on the elevated blood pressure, and if both vagi are cut before injection, the blood pressure rises just as it does in animals with intact vagi. The kidney, studied by means of an oncometer, shows no change in volume. Also the effect of certain substances on the hypertension produced by these compounds has been studied. It has been found that a 10 per cent solution of calcium chlorid, potassium chlorid and ammonium chlorid in doses of 0.1 gm. per kilogram, when slowly administered intravenously, produces a prompt and persistent fall of the high blood pressure to a normal level. Normal hydrochloric acid in doses of 1 c. c. per kilogram, when injected intravenously, produced the same result. Veratrum veride and amyl nitrite, by contrast, produce only a very temporary reduction in blood pressure. After these preliminary studies on the pharmacologic action of the guanidin compounds, a study of the excretion of these substances in the urine was undertaken. The excretion of guanidin bases in the urine of dogs poisoned with uranium nitrate was first studied. After the development of a severe nephritis with high values for blood urea and the blood creatinin, a marked and gradual diminution in the output of guanidin bases occurs, which persists until the death of the animal. The excretion of guanidin bases was then studied in the urine of normal persons and of patients suffering from diabetes mellitus, chronic nephritis, essential hypertension and other diseases. All, while under observation, were placed on a meat free diet. A summary of these results shows that, while normal persons and patients with a normal temperature and a normal blood pressure have shown an average daily excretion of 100 mg., the patients with a high blood pressure show a marked diminution in the excretion of guanidin bases. Several febrile patients have shown a marked increase in the output of guanidin bases, and one very interesting patient with a severe chronic nephritis and evidence of marked protein destruction showed a high output of guanidin bases, but had a normal blood pressure. Patients

suffering from essential hypertension and from chronic nephritis with hypertension have shown a decreased output of guanidin bases. It seems quite possible that kidneys badly damaged by chronic nephritis, or only slightly damaged by arteriosclerosis or by a small vessel sclerosis, might be unable to excrete properly these substances having such a marked pressor effect. Such a retention of guanidin bases, unless they were utilized or destroyed, might result in an elevation of blood pressure.

THE PREVENTION OF SCARLET FEVER

George F. Dick and Gladys Henry Dick, Chicago (Journal A. M. A., July 12, 1924), produced a typical case of scarlet fever by swabbing on the tonsils and pharynx a pure culture of hemolytic streptococcus isolated from a lesion on the finger of a nurse who acquired the disease while caring for a convalescent scarlet fever patient: A second group of volunteers was inoculated with the same culture after it had been passed through a Berkefeld V filter. These volunteers remained well. After about two weeks had elapsed, and they were still well, they were inoculated with the unfiltered culture. Forty-eight hours later, one of them developed scarlet fever. This experiment furnished evidence that the experimntal disease had not been caused by a filtrable virus, but by the hemolytic streptococcus itself. These first cases of experimental scarlet fever were reported, Oct. 6, 1923. Since the hemolytic streptococcus is found in the throat, and is not usually present in the blood, it is evident that the rash is not produced by the direct action of the streptococcus on the skin. The Dicks found that the streptococcus produces a soluble toxin. This toxin is absorbed into the blood, and causes the nausea and vomiting, and the rash. The discovery of this toxin offered a scientific basis for: (1) the development of a skin test for susceptibility to scarlet fever; (2) preventive immunization, and (3) the production of an antitoxin. The authors now attempted to obtain a skin test for susceptibility to scarlet fever with the toxic filtrate from the same culture that had produced the experimental disease. They found that the filtrate of this culture, when used in the proper dilution, gave positive skin tests in 41.6 per cent of the persons tested who gave no history of scarlet fever; and that it gave negative, or only slightly positive, skin tests in all the convalescent scarlet fever patients tested. It was also shown that the action of the toxin is inhibited by convalescent scarlet fever serum, mixed with the toxin, or injected intramuscularly before the skin test is made. In six instances in which they had an opportunity to observe the skin test before and after an attack of scarlet fever, it was positive before the attack, and negative during convalescence. It is further noteworthy that the authors' experiments showed that the streptococci used in these experiments fulfilled all the requirements of Koch's laws; hence the conclusion that they are the cause of scarlet fever is justified. They have also shown that it is possible to immunize susceptible persons. Adults are immunized by three injections of toxin at five-day intervals, beginning with a first dose equivalent to 300 skin test

doses, and increasing to 1,000 skin test doses. Experience has shown that the immunization must be carried to the point of a negative skin test. The prevention of scarlet fever, after exposure, is more complicated. In case of definite exposure, skin tests are made as soon as possible. At the same time, a culture of the throat is made on blood agar plates. If the skin test is negative, nothing more is done. In those with positive skin tests, the next step depends on the throat culture. If the plates show no hemolytic streptococci, active immunization is carried out with three doses of toxin. If the throat culture shows hemolytic streptococci, passive immunization is accomplished by injection of convalescent scarlet fever serum. Convalescent serum is used to avoid sensitization to horse serum. These preventive measures were carried out in a series of 125 persons exposed to scarlet fever. None of these persons developed the disease. Controls were afforded by thirty-two nurses and interns on whom skin tests were not made, and by two nurses with positive skin tests who were exposed to scarlet fever before their immunization was completed. These two nurses and five others of this control series contracted scarlet fever. During the course of scarlet fever, the body manufactures an antitoxin that is capable of neutralizing the scarlet fever toxin. It is the presence of this antitoxin in convalescent scarlet fever serum that makes it of value in the treatment of acute scarlet fever. If horses are injected with gradually increasing doses of the sterile scarlet fever toxin, they also produce an antitoxin. When convalescent scarlet fever serum is not available for prophylactic immunization, this concentrated scarlet fever antitoxin may be used.

SOME OBSERVATIONS, LARGELY PESSIMISTIC, ON THE EARLY DIAGNOSIS OF GASTRIC CANCER

In passing over in mental review his hospital experience with patients having stomach disturbances productive of symptoms, two things impress Henry A. Christian, Boston (Journal A. M. A., June 21, 1924): (1) that most cases of cancer of the stomach are rather definitely diagnosable as such, at the time the patients enter the hospital, on the basis of the history and ordinary physical examination, and (2) that extremely few cases of cancer of the stomach are unexpectedly revealed by roentgen-ray examination. In 4,000 recent admissions to the medical wards of the Peter Bent Brigham Hospital there were seventeen patients diagnosed as having carcinoma of the stomach, including one of lymphosarcoma (a histologic diagnosis). A review of their records shows that for most of them the history and ordinary physical examination justified a quite definite diagnosis of carcinoma of the stomach. Of these seventeen patients, twelve certainly should be placed in this group because they gave a history of loss of weight, usually marked in amount, with definite gastric symptoms, and because physical examination revealed a palpable mass, usually in the stomach region, although in one case there was an enlarged nodular liver. Of these twelve cases, the roentgenogram gave the appearance interpreted by the roentgenologist as

cancer in ten, while in one, the roentgenogram failed to demonstrate a carcinoma of the cardiac end of the stomach, and in another it suggested ulcer rather than carcinoma. Of the other five patients in this group, in four, although the evidence was not definite, there was little reasonable doubt of the diagnosis of malignancy of the stomach on the basis of history and physical examination. In only one patient of this group was the clinical evidence suggestive of ulcer rather than cancer. A review of these successive cases bears out fully the statement that cases of cancer of the stomach are rather definitely diagnosable as such at the time the patient enters the hospital, from a consideration of the history given, and the results of simple physical examination. Few cases of cancer are unexpectedly revealed by roentgen-ray examination in patients whose full histories and systematic general physical examinations are recorded.

TENDON REFLEXES IN MYXEDEMA: A VALUABLE AID IN DIAGNOSIS

In cases of myxedema, the tendon reflexes produce such slow movement of the parts affected that the quality can be recognized without the aid of mechanical devices and is regarded by William C. Chaney, Rochester, Minn. (Journal A. M. A., June 21, 1924), as being a valuable sign in the diagnosis of the disease. In cases of myxedema, a greater stimulation is necessary to elicit a tendon reflex than in a normal person. The period or time interval of a tendon reflex of any person under the same conditions remains the same, and seems independent of the amount of stimulation applied. In all conditions associated with a low basal metabolic rate studied to date, with the exception of myxedema, the tendon reflexes seem to correspond in every way with those of a normal person. When a patient with myxedema is treated and brought back to normal so that he loses the usual characteristics of this disease, his tendon reflexes also seem to return to normal, and the approach of the reflexes to normal seems to keep pace with the basal metabolic rate.

SIZE OF THE NORMAL HEART

A. E. Fossier, New Orleans (Journal A. M. A., June 21, 1924), has found that the normal heart corresponds invariably to the size of the fist of the individual when normal. This correlation of the clenched fist and the normal heart is constant and is the only practical determinant of its normality. The slightest variation in its size is recognized. Radiology has not furnished a basis for the determination of the normality of the heart's size. Percussion is of greater value in delimiting the cardiac area. The linear dimensions of the transverse diameter of the heart corresponds to a line drawn from the juncture of the inner side of the right hand and the wrist, and ending at the middle joint of the fourth finger.

MELANOMA

H. Hoyt Cox and LeRoy H. Sloan, Chicago (Journal A. M. A., June 21, 1924), report a case of melanoma apparently primary in the jejunum, the presenting symptoms resulting from metastasis in the hypophysis cerebri. Metastases were also present in the lungs, kidneys, heart,

liver and calvarium. The absence of definite localizing signs was notable, likewise the evidence of involvement of the pituitary with a more or less selective action on the infundibulum and posterior lobe.

THE UNILATERAL FUSED KIDNEY

Ralph L. Dourmashkin, New York (Journal A. M. A., June 21, 1924), reports a case of unilateral fused kidney on the right side of the body, with two separate pelves and two ureters. The patient had a chronic nephritis involving the left part of the fused kidney, with arterial hypertension, and a hypospadias. The pyelograms showed a unilateral fused kidney. That fusion actually existed could be verified by previous operative findings, which showed a single large kidney mass. Although the fusion was complete, the parts of the kidney drained by two separate ureters excreted urines of entirely different composition and had different functional capacities, and it was evident that the portion of the kidney drained by the left ureter was a seat of chronic nephritis. The arterial hypertension was another interesting feature in the case. The abnormal position of the ureters was undoubtedly responsible for the interference with kidney drainage and was a factor in producing dilatation of both pelves. Abdominal pain brought about by distending the renal pelvis with solution is a useful diagnostic sign, when felt on the opposite side. The case is of clinical significance, because it emphasizes the importance of a thorough urologic investigation in obscure abdominal conditions.

ZINC STEARATE AS A DUSTING POWDER

The Committee, appointed by the Board of Trustees of the American Medical Association, on Accidents from Stearate of Zinc Dusting Powders, reports (Journal A. M. A., July 12, 1924) that twelve cases of accidental inspiration of zinc stearate dusting powders were reported by Heimin in 1922. One patient died within twenty-four hours. Three developed signs of bronchial pneumonia, with symptoms of acute toxemia, lasting from two to three weeks, but ultimately recovered. In the remaining eight cases, partial asphyxia was followed by gradual recovery without definite involvement of the lungs. In response to a request for reports of accidents from stearate of zinc dusting powders, published in The Journal, Feb. 9, 1924, thirty-four cases have been reported, five of which terminated fatally. Accidents most commonly resulted from the sifting out of powder from the can in the hands of the infant, with consequent inhalation, but in some cases the infant is reported as having put the container to his mouth. The symptoms were in all cases immediate, the severity depending on the amount inhaled and the amount lodged in the mouth and nostrils. In typical cases there were asphyxia and evidence of collapse. The persistent collapse seemed strongly suggestive of a toxic effect, possibly a zinc ($Zn++$) poisoning. Pneumonia followed in some cases. The committee can find no scientificaly controlled evidence to justify the statement that zinc stearate powders as used in the nursery possess any advantage over other

well known powders, such as talc and powders of mixed composition. The committee is of the opinion that for the protection of the public, zinc stearate powders and powders containing considerable zinc stearate, for toilet and nursery use, should be sold only in containers with permanently attached covers. The shape of the cover should be such as to render it impracticable for an infant to place the top in his mouth. The cover should be kept automatically and positively closed whenever the container is not in use; for instance, by a slide or valve closing the holes at all times, except when operated by firm pressure by the hand of the person using it, the slide or valve being held in position by a spring sufficiently strong that an infant cannot operate it. Conspicuous, clearly worded caution labels should be placed on all containers of stearate zinc dusting powders for toilet or nursery use, warning users to keep such containers out of reach of infants and children.

THE DIABETIC PROBLEM OF TODAY

The Jew, in the opinion of Elliott P. Joslin, Boston (Journal A. M. A., Sept. 6, 1924), is not prone to diabetes because he is a Jew, but rather because he is fat. A study of the weights of his adult diabetic Jewish patients before they contracted the disease shows that the tendency is distinct for them to be fatter than the average diabetic patient under similar conditions. Eighty-five per cent of the Jewish patients were overweight, in contrast to 70 per cent of a mixed series of 1,000 Gentiles; 4.7 per cent of them were underweight, in contrast to 12.2 per cent of the non-Jewish patients. If diabetes were a characteristic of the Jewish race, it should be manifested from youth to old age, but this is not the case. On comparison of the age incidence of the disease in 500 of Joslin's Jewish patients with the age incidence of the disease in 2,611 of all his patients, it was found that, instead of the incidence running parallel through all the decades, it was but half as common among Jews in the first two decades of life, and less common in the third, sixth, seventh and eighth decades, leaving the fourth and fifth decades alone to exceed the Gentiles in age frequency. A Jewish child is no more prone to diabetes than the child of a Gentile. One hundred and twenty-seven of Joslin's patients, selected chiefly for the unusual severity of the disease, have taken insulin on the average for about eighteen months, and all for more than one year. Twenty-three of the patients are dead and 104 are alive. The duration of the diabetes in the fatal cases wes 5.4 years, and in the living patients has already reached 5.3 years. Although one of the living patients has had the disease 24.3 years, not one of the patients who died succumbed during the first year of the disease. There were nine deaths from coma, but only two of these occurred in the hospital. Seven of these coma deaths were needless — they were the result of ignorance and inexprience or deliberate neglect of treatment, even to the extent of giving up insulin. Of the remaining fourteen deaths, septicemia, meningitis, erysipelas, tuberculosis, multiple abscesses, and intestinal

obstruction in a woman over 80 years of age, each accounted for one, while cardiorenal disease and pneumonia each accounted for four deaths. Ninety-three of the 127 patients are still taking insulin and the average dose is 21.4 units. Ten patients are alive and not using insulin.

RESUSCITATION

Yandell Henderson, New Haven, Conn. (Journal A. M. A., Sept. 6, 1924), urges that physicians must learn the principles and methods of resuscitation—both the prone pressure method of artificial respiration and the principles involved in counteracting respiratory failure by inhalation therapy. The chief principle of this therapy is that of using a mixture of oxygen and carbon dioxid. Carbon dioxid to stimulate the respiratory mechanism to full deep breathing; to flush and flood the blood in the lungs with oxygen, and to ventilate out of the blood any volatile toxic substance. To combat respiratory failure in this way is to use Nature's own agencies to assist Nature toward recovery. Occasionally a clever intern may extemporize resuscitation apparatus out of tank of carbon dioxid from the pathology laboratory, one of oxygen from the anesthetist, and a spirometer from the metabolism room, and thus may save a life. It is hard work, but it can be and has been done. In general, however, if the methods described are to accomplish all that they should, all general hospitals must be equipped with inhalators specially designed for this purpose, and the staff must become accustomed to using them.

HYPERINSULINISM AND DYSINSULINISM

Seale Harris, Birmingham, Ala. (Journal A. M. A., Sept. 6, 1924), describes hyperinsulinism as a condition, perhaps a disease entity, with definite symptoms; i. e., those described as being due to hypoglycemia. It seems probable that one of the causes of hyperinsulinism is the excessive ingestion of glucose-forming foods and that, as a result of overactivity induced by overeating, the islands of Langerhans become exhausted and hypo-insulinism (diabetes) follows. It is possible that the hunger incident to hyperinsulinism may be a cause of overeating, and, therefore, the obesity that so often precedes diabetes. It seems probable that dysinsulinism, either an increase or a decrease in the secretion of insulin, may follow infection or trauma of the pancreas. Since excessive hunger is a symptom of hypoglycemia, it may be that normal hunger is the call for glucose and that it may be in part or wholly of pancreatic origin and not entirely an expression of an empty stomach. It is also possible that, associated with ulcer of the stomach or duodenum, there may be a coexisting disorder of the pancreas, and that the frequent feedings which give relief in ulcer may do so by supplying the glucose to meet the needs of overfunctioning islands of Langerhans. In one case of ulcer, we found a low blood sugar. Since blood pressure readings have been low in all except two of the nondiabetic patients who have had symptoms of hypoglycemia, it seems possible that hypoadrenalism may be associated with hyperinsulinism. It also seems probable that secretory disorders of

the islands of Langerhans may be associated with dysfunctions of the thyroid, the pituitary bodies and other organs of internal secretion. Fractional tests of gastric secretions after the Ewald meal have been made in several nondiabetic patients having symptoms of hyperinsulinism, with variable results, so that there is no apparent relation of secretory disorders of the stomach to pancreatic dysfunction. No studies of the external secretion of the pancreas were made in these cases. It seems probable, however, that since a chronic pancreatitis is probably a cause of dysinsulinism, the glands secreting trypsin, amylopsin and steapsin are often involved, with either increased or decreased function. Five cases are reported.

"OPTIMAL" DIETS FOR DIABETIC PATIENTS

A large experience has convinced Russell M. Wilder, Rochester, Minn. (Journal A. M. A., Sept. 6, 1924), that rigid carbohydrate restriction and relatively high fat feeding are entirely safe for the "well diabetic," if a patient who is free from severe infections and other acute complications may be thus characterized. It has never seemed wise to employ such diets when there was infection, and Wilder has hesitated to use them when there was a preexisiing severe diabetic acidosis. In the case of a few patients who have been the subjects of special investigation, a preexisting acidosis has been controlled by this dietary procedure, but generally such conditions are treated more effectively by temporary underfeeding and small doses of carbohydrate. The significance of the results obtained thus far is twofold. First, the fact that the yields of hydroxbutyric acid agree so well with the excretion predicted by Shaffer's revised method of calculation supports the opinion that the molecular ketogenic threshold ratio actually is 2:1. Second, the fact that, when the ratio is as high as 3:1 and the daily oxybutyric acid excretion is 20 gm., no actual acidosis develops, indicates that when the ratio is held below 2:1 as in Wilder's clinical diet, a considerable margin of safety is secured. Incidentally, the blood sugar of one patient, which was as high as 275 mg. for each 100 c.c. before these studies commenced, remained at a normal level, between 87 and 113 mg., during months of excessive fat breeding, and the basal metabolic rate remained continuously at a normal level during long periods of ketosis. These experiments with extremely high fat diets, revealing as they do that a molecular ketogenic ratio of 3:1 may be borne without inconvenience, suggested that the development of diabetic coma must involve extreme limitation of the ability of the organism to utilize glucose, and that such depressions of glucose tolerance are not likely to be provoked by excessive fat feeding. It has been Wilder's experience, in fact, that diabetic acidosis and coma arise either from an acute complication such as an infection, or from a dietary indiscretion, usually in the consumption of carbohydrate (candy) or protein, rarely of fat. The dietary plan is as follows: When a patient is admitted to the hospital, he is seen at once by the house officer, and if there is no acute complication the routine management is instituted without delay. The patient is kept

in bed, and is immediately started on the optimal diet as calculated by the diet card. He fasts on the fourth day, and then resumes the diet for four days, quantitative determinations being made daily of the sugar and nitrogen in the urine. If the case is not severe and the patient becomes sugar-free on or before the fast day, extra carbohydrate, such as white bread, is given during these four days to insure some glycosuria. The dietetic and laboratory data now provide a measure of the patient's tolerance; the average daily glucose excretion subtracted from the glucose value of the metabolizing foodstuffs represents the grams of sugar the patient utilizes under these standard conditions. The glucose value of the foods metabolized is calculated by adding the carbohydrate grams fed, 10 per cent of the fat grams fed, and the sugar derivable theoretically from protein catabolism. This proteidic sugar is obtained by multiplying the grams of urinary nitrogen by the factor 3.7, rather than by taking 58 per cent of the protein grams fed, since many diabetic patients have a negative nitrogen balance, when they present themselves for treatment, and catabolize more protein than is included in the diet. When the tolerance is thus determined, the larger diet necessary for working conditions, together with the necessary insulin dosage, can be planned with considerable precision, allowing 1 unit of insulin for every 2 gm. of glucose derivable from extra food in the larger diet. Diets containing 0.66 gm. of protein for each kilogram of the patient's weight, and adjusted to the patient's caloric need and proportioned so that the molecular ketogenic ratio is 1.7:1, have been given to more than 500 patients with uncomplicated diabetes, without once provoking serious acidosis. Although the introduction of insulin has obviated the necessity for very rigid carbohydrate restriction, the consideration of the ketogenic ratio of diets, as first recommended by Woodyat, is of great value in planning regimens for patients requiring insulin. Neither the rigidity of the diet nor the administration of insulin should be in excess of the needs of the invidual patient.

THE TRAUMATIC NEUROSIS

A study made by Milton B. Lennon, San Francisco (Journal A. M. A., Sept. 6, 1924), of a series of industrial and nonindustrial accident patients presenting the symptoms of a posttraumatic neurosis shows the small part that trauma plays in such a condition. When the individuals of this group are carefully studied, other facts are discovered that are vastly more important than the injury. On the other hand, a trifling physical injury with no concomitant shock may be followed by a most deplorable psychic state. In short, there must be some peculiarity of the individual that causes him to react in an uncommon way after a greater or lesser injury. However, the patient is not the only factor. The fact of injury gives him time for reflection. The injury gives an opportunity to be temporarily free. It does more than that: it evokes the sympathy of the wife and family, something perhaps denied the man for along time. Finances become low, matters are discussed with the family and friends, and

the period of resentment now arises. A lawyer is ready to offer his services, and he does all he can to make the man feel that he has a just cause and should demand damages. In the meantime, some physician has been in attendance. He stresses the trauma; he perhaps has given a lot of ill advised treament; he lets his sympathy run away with his judgment and later appears as a witness on behalf of the man. Unhappily, he may even know and recognize the condition, and by stressing half truths make it appear that the injury was the sine qua non in the neurotic state. By this time, the patient becomes obsessed by the desire to collect damages. He develops a more and more injured air. Repeated examinations, the appearance before the court and commissions keep him upset, deprives him of sleep, and sway him between hope and fear. During this time, it is utterly futile to try to treat him. He is not fighting for health but for a reward. When work is offered to him at his former place of employment, he stoutly maintains that he cannot work, yet he expends an immense amount of energy in attending hearings, finding witnesses and working up the endless details of his suit. He may even work elsewhere and justify it in his own mind. Or he may feel that working for himself is not really working, since it carries no direct payment. The pertinent question is how to help such patients. With excellent welfare workers, much can be done to keep traumatized neurotics from developing a long train of symptoms. The man who is known as a trouble maker, the one who has domestic difficulties, the complaining types, the more or less unstable characters, should have the immediate aid of a neurologist when they are injured. An alert surgeon learns to measure such men, and will do all he can to avert the legal and social factors that lead to distressing sequelae. If the wife is seen early and given every assurance that her husband will recover and be returned to work at the first possible moment; if, better still, her cooperation is obtained, the man has no chance to develop a disabling neurosis. It has been the experience of neurologists that the sense of disability terminates soon after damages are paid. The sooner this is done, the better.

TREATMENT OF PRURITUS ANI, VULVAE AND SCROTI

The technic employed by M. P. Moorer, Asheville, N. C. (Journal A. M. A., Sept. 6, 1924), in the treatment of these cases consists in rendering the part clean with water, of good soap and a soft sponge; application of a solution of mercurochrome-220 soluble as an antiseptic, and the injection of a small area with 1 per cent procain as a starter. The remainder of the diseased skin is then infiltrated, after which the underlying subcutaneous structure is ballooned out with quinin and urea hydrochlorid solution until the patient complains on resuming a chair that he is "sitting on a cushion." The pressure on the terminal nerves produced by the forcible injection of fluid in large amount brings about a temporary paralysis equal in duration to that produced by severance of their filaments with a knife, and to the mind of the average patient is much more acceptable.

THE PRESENCE OF HYMENOLEPSIS NANA IN PORTO RICO

In examining the forty-seven inmates of the boys orphan home in Hatillo, Porto Rico, for hookworms, the eggs of Hymenolepsis nana were discovered by Rolla B. Hill and Augustin Sanchez, San Juan, Porto Rico (Journal A. M. A., Sept. 6, 1924), in the stools of three of the boys. While this parasite has not been reported before from Porto Rico, it seems clear that it has gained a foothold in the island.

PROPAGANDA FOR REFORM

Camphor in Oil in Heart Failure.—Marvin and Soifer have studied the effects of camphor in oil as a cardiac stimulant. They failed to secure evidence of any action on heart rate, respiration, blood pressure, vital capacity or the general clinical condition in which digitalis is frequently promptly effective. Henceforth, the burden of proof that camphor in oil has a rational place in the treatment of congestive heart failure rests with its advocates. All others may well hesitate to place their trust in a drug that seems to have given more promises than therapeutic performances.—(Jour. A. M. A., August 2, 1924, p. 362.)

More Misbranded Nostrums.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: De Witt's Kidney and Bladder Pills (E. C. De Witt and Co.), consisting essentially of methylene blue, potassium nitrate and plant material, including a volatile oil such as juniper oil; Foster's Backache Kidney Pills (Porto Rico Drug Co.), consisting of potassium nitrate, rosin, fenugreek, uva ursi and an essential oil such as juniper; Glycofostina (Henry S. Wampole Co., Baltimore), consisting essentially of strychnin sulphate, sodium calcium and potassium glycerophosphate, alcohol and water. (Jour. A. M. A., Aug. 2, 1924, p. 375.)

Rectal Administration of Digitalis.—Digitalis is absorbed rapidly and fairly uniformly from the alimentary tract of man, although some substances in the digitalis group, notably strophanthus products, are unsuited for oral administration. However, nausea, vomiting or surgical operations may sometimes interfere with the use of digitalis by mouth. For such emergencies digitalis may be satisfactorily administered by rectum. In many patients with auricular fibrilation, the results have been rapid and beneficial. Rectal digitalis therapy is not intended to supplant the well established oral method of administration, but rather to be used as an emergency measure when the customary mode of introduction is not feasible. (Jour. A. M. A., Aug. 9, 1924, p. 446.)

Sun and Moon Oil and Ointment.—Alfred W. Lowrie of Hartford, Conn., an alleged divine healer, mixes religion with his quackery. In a publication by him he is said to have died once, and while dead was ushered into the presence of the Supreme Being. While in heaven, Lowrie was presented with the "key to knowledge" to be used by him when he returned to earth. After Lowrie's visit to heaven he seems to have started making what he is pleased to call "Sun and Moon Sacred Ointment" and "Sun and

Moon Sacred Anointing Oil." The ointment is claimed to contain "vibrations of life from the radio-activity of electricity, magnetism, electrons and atoms." The ointment is to be used externally and internally for a variety of ailments. The A. M. A. Chemical Laboratory found the composition of the ointment to be essentially: petrolatum 75.50 per cent, saponifiable fat 17.20 per cent, methyl salicytate 4.00 per cent, "dirt" 0.15 per cent, oil of sassafras, water and undetermined 3.15 per cent. The "sacred oil" is for external and internal use. It was claimed to have no equal for tired and sore feet, rheumatism, neuritis, lameness, hardening of the arteries and nerves, broken bones, skin diseases and other conditions. The A. M. A. Chemical Laboratory found the oil to consist essentially of fixed oil (probably olive oil) 87 per cent, methyl salicylate 5 per cent, oil of sassafras 1 per cent, alcohol 2 per cent, water and vegetable extractive 5 per cent. (Jour. A. M. A., Aug. 9, 1924, p. 458.)

Inhalation of "Carbona"—A periodic drinker used the cleaning fluid "Carbona" to produce unconsciousness when inhaled. Carbona contains carbon tetrachlorid as its essential constituent; carbon disulphid being generally present also. Carbon tetrachlorid has been tried as a general anesthetic and found unsatisfactory. The carbon disulphid greatly increases its toxicity when inhaled. (Jour. A. M. A., Aug. 9, 1924, p. 461.)

The Therapeutic Use of Digitalis.—The Council on Pharmacy and Chemistry has long held that digitalis effects can be obtained satisfactorily in most instances by the oral administration of digitalis itself, the tincture or the infusion, and that the intravenous administration of digitalis preparations is rarely necessary. However, investigation indicates that digitalis preparations are administered intravenously far more frequently than seems to be demanded. Because of the importance of digitalis therapy, the Council decided to appoint a committee composed of men who have made a study of questions concerning the administration of digitalis, and to request this committee to prepare a report for publication which would set forth concisely the limitations of digitalis therapy and the methods of obtaining digitalis effects. At the request of the Council, Drs. G. Canby Robinson, Paul D. White, Cary Eggleston and Robert A. Hatcher prepared a report. This report brings out the indications for the use of digitalis, the limitations of the drug, its dosage and method of administration. It discusses at considerable length the conditions where the intravenous and intramuscular administration of digitalis may be called for and when the oral administration will be found satisfactory. The report concludes with the statement that the oral administration of digitalis in the form of the standardized powdered leaf, infusion or tincture, meets every requirement of digitalis therapy, with the exception of those relatively infrequent cases in which immediate relief is imperatively demanded, or when nausea or vomiting precluded the oral method, and outlines the intravenous, intramuscular or rectal administration of digitalis bodies when the threatening condition of

the patient demands immediate relief. (Jour. A. M. A., Aug. 16, 1924, p. 504.)

Yadil.—This is an international fake of British origin. The advertising campaign for Yadil reminds one of Sanatogen in those palmy days when the public could be persuaded to pay a dollar for a few cents worth of cottage cheese. As Sanatogen was the apothesis of cottage cheese, so Yadil is supposed to be glorified and esoteric reform of garlic. A part of the Yadil advertising campaign is an alleged history of garlic as a curative agent. Just what the theory of its use may be is not clear. Possibly the basic idea is that no self-respecting germ will want to tarry in an organism saturated with garlic. Yadil is put on the market by Clement and Johnson Bros. of London. The concern has a subsidiary company for its publicity, known as the Yadil Press, Limited (formerly called "Quality Press, Limited"). The American agents are E. Fourgea & Co., New York. In the British Isles, newspapers and magazines are carrying full page and middle page spreads for Yadil for tuberculosis, for cancer, for scarlet fever, for gonorrhea, and for what-you-have. The British newspaper, The Daily Mail, which has refused Yadil advertising, published in its issue of July 23, an exposure of Yadil written by Sir William J. Pope, senior professor of chemistry in the University of Cambridge. Whereas the manufacturers claim that Yadil is "Trimethanal Allylic Carbide," and declare that it is of entirely harmless vegetable origin, its active principle being natural essential oil of garlic, Professor Pope, after an analysis of Yadil, stated that (1) it is not "Trimethanal Allylic Carbide," (2) that it consists of about 1 per cent formaldehyd, 4 per cent of glycerin, 95 per cent of water and a smell. According to Professor Pope the smell can be closely imitated by adding to one hundred tons of water, one ounce of oil of garlic. He also discusses the testimonials both from physicians and from laymen and shows the utter worthlessness of the testimony. In another article in The Daily Mail, Professor W. E. Dixon of the University of Cambridge emphasizes that the basic drug in Yadil is an irritant poison with cumulative effects, and characterizes some of the medical evidence for Yadil is nonsense. (Jour. A. M. A., Aug. 16, 1924, p. 550.)

Anaphylactoid Phenomena and Modern Therapy.—Anaphylaxis is that state of hypersusceptibility to a given substance which has been induced by a previous injection of the same substance. The reaction is limited to substances of a protein nature. A considerable variety of chemically unrelated substances may produce "anaphylactoid" symptoms after intravenous injection by virtue of their causing occlusion of the pulmonary capillaries by thrombosis or by agglutinated corpuscles or platelets. Some of the substances which may produce anaphylactoid phenomena have been widely proposed for intravenous therapy including a variety of "colloidal" solutions of iron, mercury, arsenic, antimony and protein, as well as extracts of animal tissues. In consideration of the possibility of anaphylactoid reactions being induced by such substances, it is well to reiterate that there seems to be little, if any, justification for the

intravenous administration of such agents as hexamethylenamin, sodium salicylate and sodium iodide, because their systemic effects are readily obtained by oral administration. (Jour. A. M. A., Aug. 23, 1924, p. 614.)

More Misbranded Nostrums.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Doane's Kidney Pills (Foster-Milburn Co.), consisting essentially of potassium nitrate, ground leaves of uva ursi, a trace of volatile oil such as turpentine or juniper oil, a resin, starch, sugar and talc. (For years the advertising of "Doane's Kidney Pills" has long been an offense against the public health. Its advertising methods have been such as to frighten the public into the belief that pain and soreness in the lumbar region is indicative of kidney disease.) Lafayette Headache Powders (Lafayette Co.), consisting essentially of acetanilid, caffein, sodium bicarbonate and aromatics, including cinnamon and ginger. Grogan Mineral Water (Grogan Wells and Boone Institute of Massage), containing large numbers of bacteria and gas-forming organisms, indicating that the water was polluted. (Jour. A. M. A., Aug. 23, 1924, p. 631.)

Scarlet Fever Toxin.—Scarlet fever toxin has been furnished by the John McCormick Institute to some city and state health departments. Physicians inquiring for this material should apply to their local health department. There is an increasing demand for standardized toxin that the Drs. Dick believe should be met; however, because the toxin must be standardized on human beings, the commercial companies are going to find it difficult to standardize accurately. (Jour. A. M. A., Aug. 30, 1924, p. 705.)

Chlorin Inhalations in Respiratory Affections.—Numerous devices have been advanced for the inhalation of chlorin gas. Several municipal health departments have installed treatment chambers where such devices are undergoing extensive experimentation. It is impossible to say if the virtues of the method has been demonstrated, and it must be considered in an experimental stage. The indications are that chlorin inhalations will not produce bacterial sterilization of the mucous membrane, although they seem to reduce the number of bacteria found on the tissues. The duration of an adequate treatment, the concentration of gas to be used, the methods by which the gas is to be produced, and similar factors are still the subject of experimentation. (Jour. A. M. A., Aug. 30, 1924, p. 691.)

Fatal Anaphylaxis From Hemostatic Preparations.—Recently a death was reported which was caused by the injection of a hemostatic preparation. It was discovered afterwards that the patient was a sufferer from asthma and that the attacks were elicited even by the mere approach of a horse. Because of the importance of determining the anaphylactic possibilities of the various blood coagulants, the Council had specimens of the following preparations examined: Coagulen—Ciba, Fibrogen—Merrell, Hemagulen—Lilly, Kephalin — Armour, Hemostatic Serum Lapenta (Hemoplastin)—P. D. and Co., Thromboplastin — Lederle, Thromboplastin Squibb, Thromboplastin Hypoder-

mic—Squibb, Thromboplastin Solution—Armour, Precipitated Horse Serum (Coagulose)—P. D. and Co. It was found that all of the specimens contained animal protein (in most cases horse or beef protein was present). In most cases the labels and descriptive literature did not state the precise nature of the coagulant. Since blood coagulants are usually administered as an emergency measure, physicians may overlook the danger and introduce these foreign proteins into a hypersensitive person. The Council recommends that all hemoplastic preparations be labeled to show the composition of the product, the character of the protein present, and to contain information which will cause the physician to inquire into the patient's history to learn if hypersensitivity exists. (Jour. A. M. A., Aug. 30, 1924, p. 705.)

NEW AND NON-OFFICIAL REMEDIES

535 No. Dearborn St.,
Chicago, Ill.,
August 29, 1924.

DR. J. R. BLOSS, Editor,
W. Va. Medical Journal,
Huntington, W. Va.

Dear Doctor:

In addition to the articles enumerated in our letter, the following have been accepted:

Coleman and Bell Company—Gentian Violet Improved Medicinal.

Hynson, Westcott and Dunning—Meroxyl; Meroxyl Tablets—H. W. and D.

Jensen-Salsbery Laboratories — Rabies Vaccine (Human) Phenol Killed.

Eli Lilly and Company—Oridine; Oridine Tablets.

H. A. Metz Laboratories—Silver-Salvarsan, 0.6 Gm. Ampules.

National Aniline and Chemical Company—Gentian Violet Medicinal—"National".

Parke, Davis and Company — Diphtheria Toxin Antitoxin Mixture, 0.1 L+.—P. D. and Co.

E. R. Squibb and Sons—Antistreptococcic Serum—Squibb, packages one 10 Cc. syringe; Antistreptococcic Serum—Squibb, packages one 50 Cc. vial; Antistreptococcic Serum Rheumatic—Squibb, pack-one 20 Cc. vial; Antistreptococcic Serum Rheumatic—Squibb, packages one 50 Cc. vial; Diphtheria Toxin Antitoxin Mixture (New Formula), packages thirty 1 Cc. ampules; Sulpharsphenamine—Squibb 1 Gm. ampules; Sulpharsphenamine —Squibb, 3 Gm. ampules.

Frederick Stearns and Company — Insulin — Stearns Quadruple Strength.

Wilson Laboratories — Ampules Pituitary Solution—Wilson, 0.5 Cc.

Nonproprietary Articles—Thiosinamine; Gentian Violet Medicinal.

Yours truly,
W. A. PUCKNER, Secy.,
Council on Pharmacy and Chemistry.

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THE PATHOLOGICAL ENDOMETRIUM

By F. CHURCHILL HODGES, M. D.
Huntington, W. Va.

Read Before the West Virginia State Medical Association, May 15, 1924, at Wheeling, W. Va.

One of the frequent complaints of our female patients is of excessive or irregular menstrual flow. A certain proportion of these will right themselves spontaneously under the rest treatment; the remainder will continue to bleed for varying lengths of time until the physician decides to take more drastic measures. This usually means a curettage. Believing that too many of these operations are performed for therapeutic purposes has led me to review the cases upon whom a curettage has been done, and the scrapings sent to me for a diagnosis. Both the microscopic sections and the histories of the patients were studied, in an endeavor to determine (a) the relation of the clinical to the microscopial diagnosis, (b) the indications for curettage, and (c) whether or not microscopic examination has proven of value.

Of 154 tissues examined from the uterus, 64 were from the endometrium proper, referring to that portion of the mucous membrane lining the uterine canal at a higher level than the internal os, thus excluding the endocervix. This sharp distinction must be made, for the ills to which these two parts fall heir are very different. The cervical mucosa is subject to the usual diseases of mucous membranes, while the endometrium, whose function is to receive and nourish the fertilized ovum, is by nature rendered immune to a large portion of these ills, notably infection, and, to some extent, malignancy.

In a number of these cases, when the cervical canal was partly dilated, no anesthetic was required

to obtain the specimens, a small sharp curet being used.

It is essential first to classify these diseases according to whether or not they are malignant. It was found that seven were definitely cancerous, one was a borderline, and fifty-six non-cancerous. Five of these were adeno-carcinoma, and two of the squamous type, which is but a later stage of the former, and is nearly always found in older people, usually over 55 years. The average age of these patients was 46, having passed the menopause. The percentage of malignancies here found is undoubtedly higher than would be obtained in as many cases taken as they present themselves, because the majority have been referred for microscopic examination only because certain peculiar or unusual symptoms suggested cancer. The pre-operative diagnoses made on these malignancies were: Cancer, two; suspected cancer, two; endometritis, two, and sub-mucous fibroids, one. In no case could any metastasis be attributed to the curettage. No cases of chorio-epithelioma were encountered. It may be well to mention that the diagnosis of this condition from the uterine scrapings alone is very difficult. The only difference between a chorio-epithelioma and a normal syncitium is in the degree of invasiveness into the uterine muscle; and when it is recalled that the normal function of the syncitium is to melt the endometrium and to invade the uterine wall to some extent, the difficulty of diagnosis becomes more apparent.

In all of these malignancies, bleeding was a prominent symptom, the character of which did not differ materially from conditions which showed no malignancy. In three of the cases, suspiciou was aroused because of the appearance of bleeding after the menopause. A foul discharge was present in two, but was present also in a number which were not cancer. In none of these cases was pain a symptom. Fortunately, cancer of the fundus, unlike that of the cervix, usually sounds a signal warning, which, if heeded, gives plenty of time for its thorough removal. Metastasis from the cervix is rapid; from the fundus, slow; so even if the first warning of the approach of danger be disregarded, another is soon sounded by a reappearance of, or a continuation of the bleeding; still giving time for removal before it is too late. Six of these patients have had hysterectomies, with subsequent irradiation. Four are apparently well after two to four years, one died of peritonitis, one of the malady, and one still lingers.

Of the benign primary endometrial conditions, the membranes remaining after incomplete abortion head the list. Here the average age was 30, the diagnosis was usually made clinically, and cleaning the uterine cavity with gauze or the curet effected cures. It was in this group, and this group only, that true endometritis was seen, and then in only two cases.

There were two cases of hydatid mole, with bleeding the predominant symptom, and the indication for curettage. These were both seen before an abnormally large uterus could be made out. So far, both have remained free from further symptoms, after six months and three years, respectively.

Secondary Endometrial Conditions

Glandular hyperplasia, frequently and erroneously called endometritis, either hyperplastic or hypertrophic, was seen in eighteen cases, and is the most important, and probably the most maltreated of any of these. This is the type usually termed functional uterine bleeding. It has been fairly well proven that the etiology of this condition is not in the endometrium, but in some abnormality of the internal secretion of the ovaries, or possibly a pluri-glandular affair. Grossly, we usually find a thickened endometrium; the curettings are abundant, consisting of many small, oval, pinkish, almost translucent pieces of tissues. The average age of these patients was 43 years, as compared to 46 for the cancer group. Both are most apt to occur about the time of the menopause, so little aid in differential diagnosis is offered by the age incidence, with this exception: glandular hyperplasia is not infrequent around the age of puberty, while cancer in this location is very rare at that age. Bleeding was the most prominent symptom in the hyperplasia group, as in the cancer group. The histologic picture of glandular hyperplasia is usually distinctive in appearance, both the stromal and the glandular elements being increased. The size and shape of the cells remain normal, no mitotic figures are seen, the cells take an even strain, and the gland cells show no proliferation beyond the normal barriers. In cancer, a part or all of the above take on a positive character, according to the degree of malignancy. The diagnosis of these conditions while in the operable stage can be made only by means of the microscope. In these cases, therapeutic curettages have been much less successful than in the incomplete abortion group.

All the curettings should be saved, and as many as possible included in the same microscopic section, as some areas may be malignant and others benign. Parraffin sections have to me been more satisfactory than frozen ones, and time should be given the pathologist to make these if the first diagnosis shows nothing malignant. It requires only a few hours longer, and the results more than compensate for the increased time. Here let me emphasize the importance of placing the scrapings in 10% formalin or 60% alcohol immediately after their removal, and not wrapping them in dry gauze. This not only causes extra vital changes to take place, with a consequent misleading structure, but necessitates a secondary operation in separating gauze from scrapings. Several times we have had to discard tissues because of this.

In the last group, which we have called congested endometria, are included those scrapings from patients with fibroids, malposition, normal pre-menstrual congestion, etc. There were fourteen of these cases, in which bleeding was also the most prominent symptom. The clinical diagnosis of endometritis was made on four of this group, in three definite intra-mural fibroids, were made out, the curettage being done to rule out the presence of an unsuspected cancer. In the remainder of the cases, no definite cause has yet been found. Six polypoid adenoma were seen, the average age of these patients being 53 years.

Simple removal has effected a cure in all.

Indications for Curettage

The indications for curettage have been only two; first and most frequent, diagnostic, and second, the removal of products of conception. We believe curettage to be a frequently abused surgical operation.

The following cases will best answer whether or not microscopic examination has been of help.

Mrs. S, 43 years old, with three well children, noticed an excessive flow each time she became unwell, both the amount and the duration being increased. This continued for three months before she consulted her physician. He immediately did a diagnostic curettage, the sections from the scrapings of which showed an adeno-carcinoma, A pan-hysterectomy was done, followed by irradiation. Today, three and one-half years later, she is apparently in perfect health.

Mrs. H, age 45, had one well child. She had been flooding for several consecutive menstrual periods, both the duration and the amount being increased. The attending physician suspected cancer, and the relatives were much upset. A surgeon was consulted. He did a curettage, obtaining two teaspoonfuls of scrapings, which, upon microscopic examination, showed a typical glandular hyperplasia. The curettage apparently effected a cure, and she is well today, with all her organs intact.

Mrs. J. C., age 34, consulted her physician because of bleeding. Upon examination, he made a diagnosis of a fibroid, which he decided was of the type to be cured by irradiation. As a precautionary measure, he did a diagnostic curettage, and sent the scrapings in for a diagnosis. Sections showed an adeno-carcinoma. A hysterectomy was done, followed by irradiation. The uterus showed a fibro-myoma, complicated by an area of adeno-carcinoma. Irradiation alone might have incited the cancer to an increased activity.

As a by-product of this study, it was observed that the occasional operator was surer of his diagnosis than the trained surgeon; and was harder to convince that the patient did not have endometritis.

The importance of taking and keeping a good history of each case was emphasized. We can easily recall the details of our recent cases, some of which we fail to put down in black and white. When we look up these records several years later, the details have passed from our minds, we find that they have never been recorded on the histories, and thus much valuable information is lost. Some of the endometrial conditions seen had to be discarded because of the lack of a history. Help the pathologist to learn something from each case by giving at least enough data to locate the patient. A history is not wanted to enable one to make a microscopic diagnosis, but is needed to either conform or refute it at a later date.

Conclusions

1. The diagnosis of endometrial conditions by simple inspection of the uterine scrapings is too uncertain to rely upon. Only by microscopic examination can the true condition be determined.

2. The indications for curettage have been two only, viz: the re-

moval of products of an incomplete abortion, and the removal of tissue for diagnosis.

3. Cancers of the fundus can be diagnosed in the operable stage by microscopic examination of the scrapings, but not from the clinical symptoms alone.

4. Endometritis is much less frequent than is usually supposed, occurring only twice in 64 cases, and these were infectious following incomplete abortion.

5. Most of the cases diagnosed endometritis were glandular hyperplasias, and showed no evidence of any inflammatory process, either acute or chronic.

THE ENDOMETRIUM FROM A CLINICAL VIEWPOINT

By W. N. ROWLEY, M. D.
Huntington, W. Va.

Read at the Fifty-seventh Annual Meeting of the West Virginia Medical Association, Wheeling, May 1924.

The purpose of this paper is to emphasize the true significance of this important, yet much abused, tissue known as the endometrium, which in the recent past was considered the cause of many gynecological complaints. It has been condemned as the cause for ammenorrheas, dysmenorrheas, menorrheas, metrorrheas and leucorrheas; as the cause for back ache, pelvic pain, side ache, topal head ache, and what not. Chronic endometritis was included in every gynecologic diagnosis. The importance of this epithelial tissue was such that it became routine practice to curet most every gynecological case complaining of the above symptoms. What benefit could be expected from scraping off the lining of the uterus in a more or less irregular fashion is beyond explanation. The uniformly poor curative results stimulated many capable workers to study this tissue with renewed vigor. Their findings proved that the endometrium is truly a remarkable tissue. In its normal state it was found to present a markedly varied picture under the microscope. Only one cycle of its change had previously been studied. This was the cycle in which hemorrhage was a clinical feature. The other cycles gave no clinical excuse for curettage.

Literature

Hitchman and Adler[1] have shown that most cases classified as endometritis are devoid of histological signs of infection. The varied appearance of the endometrium is ascribed chiefly to changes characteristic of different phases of the menstrual cycle. These authors insist that inflammation of the uterus never causes hemorrhage. They assert that idiopathic uterine bleeding not ascribable to systemic causes is always produced by deranged function of the ovaries.

In a study of the etiology of uterine hemorrhage, Schickele and Keller[2] find no relationship between hypertrophy of the endometrium and hemorrhage. Cullen and Morris[3] found only 49 out of 800 and 995 cases studied respectively showing a non-tuberculous endometritis. Curtis[4], whose work stands out as probably the most brilliant advance in recent years, points out the fallacy of the old belief relative to endometritis. In his studies the endometrium of uteri removed at

operation was cultured. Based on these results he concludes that in nullipara, without history or gross evidence of pelvic infection, the endometrium is free from bacteria and microscopically normal. Almost all women who have undergone normal pregnancy with pelvic history otherwise negative, have bacteria free endometria. The possibility of infection appears to be slightly increased by pregnancy.

Patients with a history of chronic infection from whose endometrium bacteria were obtained almost always had salpingitis with equally good growth from the tubes. Curtis states with emphasis that chronic endometritis per se, with bacteria present in smears or cultures is practically to be ruled out as a clinical entity; pyometria, recent exploration of the uterus, and infection of adjacent organs excepted.

Clinical Symptoms

With this knowledge of the pathology of the endometrium the entire viewpoint in clinical diagnosis is altered. The clinical symptom which most commonly directs the attention to the endometrium is uterine bleeding, and this finding has for its cause two particularly sharp classification groups:

First, bleeding caused by intra-uterine disease. Second, bleeding caused by extra-uterine disease.

The first or primary group comprises those cases in which bleeding is of an intra-menstrual type, irregular as to time and irregular as to character. The history in these cases, especially the age of the patient, divides the group into the non-malignant age and the malignant age. To this as to all general rules there are exceptions. Incomplete abortion is the cause of uterine bleeding of irregular type and character in women of the childbearing age. Here we see a group in which secondary infection may occur as the result of improper instrumentation and retention of gestational products.

This group, and this group alone, comprises the sum total of all cases in which the curet may be used as a therapeutic instrument and then only in early abortions (8 to 13 weeks) and in old, long standing, incomplete abortions, in which the uterus is freely movable and practically involuted. New growths as polyps may occur but are less frequent in the endometrium than in the cervix.

In those cases of primary bleeding in the malignant age group, fibroids, cancer, chorioepithelioma and sarcoma of the uterus must be considered. Here the bleeding is strictly speaking not due to the endometrium per se but to the neoplasm and its effects upon the vascular tissue. In these cases the history and bimanual examination should be sufficient to determine the classification of the bleeding. The first procedure to follow when the group is determined is the diagnostic curettage. Under ideal conditions this procedure should be done in a well equipped operating room with the pathologist at hand to make a microsocpic diagnosis so that the surgical procedure indicated may be performed at once. However, these conditions are not always possible and still the patient must not be denied the benefit of accurate diagnosis. In these patients at or near the malignant age who prosent a history of bleeding, staining or spotting between

the periods and show no gross palpable evidence of fibroids or other neoplasms and who have no gross cervical lesion, diagnostic curettage is indicated.

Diagnosis of malignancy of the uterine fundus from the gross appearance of the scrapings is impossible. The character of the scrapings on gross examination may be tentatively classified as benign or malignant. The answer must come from the pathologist.

When uterine scrapings are examined in the fresh state and appear smooth, reddish or brownish and glistening, the condition is practically always benign. If the scrapings are whitish or grayish and granular or resemble brain tissue, the condition is practically always malignant. These facts as first brought out by Broders[11] are of invaluable aid. While the tissue is in the hands of the pathologist for microscopic diagnosis in the case of fundal carcinoma, the harm done by the currettment is much less than in the cervical carcinomas where a section is taken for diagnosis. The danger to the patient from spread of the malignancy is nil compared to the danger to the patient of inaccurate diagnostic methods. Proper surgery should follow as soon as possible after pathologic diagnosis.

The second large group of cases are those in which the uterine bleeding is secondary to some systemic, extra-uterine, or functional disturbance of the endocrines.

This second group may be divided into three lesser divisions, namely: (a) Uterine bleeding due to pelvic congestion; (b) Uterine bleeding due to ovarian dysfunction; (c) Uterine bleeding due to general systemic disease.

When uterine bleeding is associated with passive congestion of the uterus due to relaxation of the cardinal ligaments, malpositions, subinvolutions or chronic cervical infections, the endometrium is not the cause and curettage not the cure. The bleeding in this group of cases is usually a metrorrhagia or menorrhagia, and not infrequently is associated with tags or clots. Correction of the condition producing the passive congestion is the method of cure and diagnostic curettage is indicated only at the malignancy age, and routine or curative curettage not at all. When there is associated pelvic infection, pyometria, parametritis and salpingitis, curettage only serves to disseminate the infection.

Uterine bleeding due to ovarian dysfunction has a varied presentation of symptoms and findings. Disturbance of the endocrine balance with resultant manifestations in the form of uterine bleeding is recognized more frequently in recent years. The factors causing the imbalance are many and are congenital or acquired in origin. Of the congenital type the most common is developmental anomalies of the genitals. Infantilism with its attendant dysmenorrhea often presents symptoms of irregularity as to the time of the bleeding and altered character of the discharge. Sharp profuse hemorrhage seldom occurs, but protracted bleeding at the mense with two or three days of free bleeding is the rule. Here stimulating curettage is of no avail and may lead to a secondary infection. Organic therapy is the only hope of relief.

Inflammatory processes, more particularly parametritis with subsequent thickening of the ovarian theca, or venous congestion of the ovarian ligaments with varicosities, leads to functional disturbances of the ovary and consequent endocrine imbalance. The endometrium is never primarily involved and applications to the endometrium or curettage are valueless.

This type forms a relatively large group and diagnostic caution must be emphasized. Premenopausal hemorrhage, coming under this group, presents an important diagnostic problem.

The third type of uterine bleeding, namely that due to systemic disease, is mentioned to emphasize its importance in differential diagnosis. Anemia, chlorosis, hyperthyroidism, tuberculosis[9], puberty[10], and focal infections are some of the factors influencing uterine bleeding. Local treatment, both surgical and medical, have no place in the treatment of these cases. Curettage for diagnosis is not indicated.

The second clinical symptom of frequent occurrence in gynecologic cases is that of vaginal discharge. The endometrium has been unjustly condemned as the etiologic factor in this complaint. Here again we must refer to the work of Curtis. He has shown the error of this view and in further work has demonstrated the constancy of the endocervix as the causative factor. Curtis further draws attention to the importance of Skene's glands as a productive factor in vaginal discharge. The internal os is the anatomical barrier which sharply divides the uninfected endometrium from the infected cervix. Unless there is present, tubal infection draining through the uterine cavity and cervix, or pyometria, the vaginal discharge has its origin in the endocervical glands. The curet applied to the endometrium as a curative or diagnostic procedure can be of no avail.

Based upon the knowledge of the existing pathology, the best treatment of the endometrium in the majority of cases where the endometrium is supposedly at fault, consists in scientific neglect. The single exception to this ultraconservative treatment is the incomplete abortion. The endometrium here is not primarily at fault for it is no longer endometrium but decidua and thus we find the change necessary to the process of pregnancy.

Thus the curet has passed from from a therapeutic instrument of wide usage to one of very limited value.

Chipman[6] so aptly expresses this in his writings that repetition here is justified. He says of the uterine curet, "Do not abuse it." Never curet the uterus as a routine. Never curet the uterus save it be freely movable and there be no adnexal disease. NEVER CURET THE SEPTIC UTERUS. And here let us pause for mental assimilation.

Hodges[8], in a review of his data from examinations of uterine scrapings shows a very low incidence of endometrial disease though bleeding was the prominent symptom.

In summary certain points are worthy of emphasis. Endometritis as a clinical entity is a rare disease. The term is not correct in the sense it is usually used.

The curet has two functions: Therapeutic in certain cases of

abortion; Diagnostic in certain cases of uterine bleeding.

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* * *

Discussion

Dr. William Sheppe, Wheeling: The uterine glands are so extremely tortuous and placed in such a position that processes which simulate malignancy are often seen, and it is only by considerable experience that one is able properly to differentiate. This being such a difficult tissue, only those who are accustomed to examining sections should be trusted with the final diagnosis.

I thoroughly agree with the two gentlemen that endometritis is a term which has been misused. We see very few cases of endometritis in uterine scrapings. It is usually glandular hyperplasia that is meant. As to the difficulties of diagnosis of chorio epithelioma, of which Dr. Hodges spoke, there is one other pathological condition which he did not mention, the scrapings from the uterus in early ectopic pregnancy. I remember two cases in which scrapings were made, and the changes in tissue led us to believe it was carcinoma. The abdomen was opened and early ectopic pregnancy was found.

I am not a great believer in uterine curettage, but I have yet to see bad effects from it if properly done. I do not believe it will disseminate existing carcinoma if present. I believe it is a comparatively safe procedure if done with proper technique.

Just one other point—that is to emphasize the necessity of placing all curettage specimens directly into ten percent formalin as soon as removed. We get so many specimens which have dried out and in which postmortem degeneration has already taken place. The other day I called the attention of a surgeon to postmortem degeneration in some specimens he had brought. He said it could not be, because he had brought them to the laboratory himself, without delay. That might be so, but degeneration will begin to take place in even an hour and a half, and these specimens should be placed directly into a formalin solution.

* * *

Dr. Frank LeMoyne Hupp, Wheeling: I have very little to say except along lines of commendation. I think these are both timely papers, and I think we all wish to subscribe to what Dr. Rowley has said about the diagnostic curette and particularly about the misuse of the curette. It has been my misfortune within the last two years to see two cases in which the uterus was entered by the sharp curette. That is a part of our armamentarium which should be put into the junk heap except for the purpose for which Dr. Rowley mentioned it.

As to Dr. Hodges' paper, it is refreshing to have the subject of uterine bleeding treated in such an able way, particularly these extra-uter-

ine causes, where the ovary is responsible for the bleeding and where the bleeding has to be handled not through the curette but through the endocrines and the functions of the ovary.

The thing we are going to carry away from this meeting as much as anything else in Dr. Rowley's paper is his conservative idea with reference to the curette, and I really think it has no place in gynecological treatment except as indicated. It has been my misfortune to see a number of these cases treated, not only in our own hospital, but, before we were so definitely established and before that technic was so perfected here by Dr. Clovis in his good work, I had a number of my cases sent to Burnham, of Baltimore, and in some eighty cases of uterine bleeding that we selected as not being good risks I have seen the happiest results from radium. Our radiologists can measure the dose so as not to do damage to the bladder and surrounding parts, and I have seen the happiest results, in young women, particularly, where the dose was so regulated that they have gone on menstruating, and the uterine bleeding has stopped—even in some fibroid cases where there was some contraindication for surgery or vigorous protests against it, menstruation has returned, and in one instance the woman became pregnant. I think radium, properly used, in definite dosage, will supplant hysterectomy in some of these cases. I hope some of the radiologists here will tell us more about this end of it.

I wish to thank these men for bringing up this subject, as it is one which has not been discussed for a good many years.

THE PROBLEMS OF SELECTING STUDENT NURSES

By ELEANORA KOCH, R. N.
Supt. Chesapeake & Ohio Hospital
Huntington, W. Va.

Read Before the West Virginia State Nurses' Association, Charleston, Sept. 25, 1924.

I realize that my subject is a broad one, in many ways very complex, and yet I feel that every consideration possible should be given this matter because in this day and age the trained nurse plays a very important part in our life as individuals as well as a nation.

The nurse of today is the product of years of careful training. We accept her fresh from home or school, or a young lady who has grown weary of the grind of the office or of teaching, and seeks as a nurse to occupy a higher position in the scale of life.

When she comes to us for acceptance she is generally filled with a greater or less degree of enthusiasm and inspired with an altruistic idea of the really worth-while things she will accomplish. She has little idea or conception of the responsibilities before her or of the long hours and severe tax on her physical capacities which she must face.

It has always been my purpose and role to study individually each applicant for training. I watch her carefully as I talk with her, note her facial expression, take a careful inventory of her personal appearance, get an idea of her education by the correctness of her conversation and the general scope of her comprehension of life. Her private life is carefully and fully gone into, not only as to her moral

character, but also with a view of determining her habits of punctuality and her ability to discharge the endless demands of life.

Having accepted a nurse, I at once begin her training. Our course does not differ in any marked way from that given at any good hospital.

The point I desire to lay especial stress on is my policy of studying each nurse as an individual, attempting always to appeal to the best there is in her, trying to encourage the good even while I censure the bad, feeling that in such a way I can win my way into her heart and soul, for, as you know, nurses are very, very human, and I find that they respond to such treatment far better than to harsher methods. I try to impress on my girls the bigness of the profession they have chosen; how at all times they are in intimate contact with human beings whose dispositions are all awry and upset by acute pain, exhausting disease or horrible anxiety. I try to impress on them the necessity of studying each patient that they may better serve the situation and aid the doctor.

The psychology of nursing is a realm but little touched on and little understood by the average person. To the nurse of many years' experience, countless instances of lives saved, suffering lessened, and broken hearts healed by optimism and good cheer on the part of the attendant come like blessed benedictions and go a far way toward recompensing us for the service we have rendered throughout the years.

I have always felt that a nurse was entitled to the very best training possible. She gives years of her life that she may graduate, win a diploma and pass a state board, and thus be in a position to meet life as a professional character, and it is up to us who fill the responsible position of superintendent to see to it that the training they get is full, exact and practical, for after she leaves us she either makes a glorious success and is a real benefit to the world, or is so incapable as to court and merit failure, and hence is at once miserable and depressed.

I can sum up my idea of the nurse in a very few words: Carefully pick your girl, win her love and confidence, trust her as she merits trust, guide her at all times. When you give her demerit marks, let her know definitely just why they are given. When she meets the varying perplexities and hardships of her work cheerfully and efficiently, give her due credit, and let her know that you appreciate her work. Then, in the end, you will graduate girls whose lives will reflect honor to their Alma Mater and be to you a personal source of really genuine pleasure and comfort.

PERSONAL REMINISCENCES OF THE FOUNDER OF MICROBIOLOGY

By WM. SEAGROVE MAGILL, A.M., M.D.
Davis Memorial Hospital
Elkins, W. Va.

Read at the meeting of the Barbour-Randolph-Tucker County Medical Society, April 18th, 1924.

Mr. President and Gentlemen:

In thanking you for the honor of your invitation to address this society, I take particular pleasure in

following the suggestion of several members, to give you souvenirs of the personality of my master, the founder of microbiology, the great Pasteur.

Let me recall that all knowledge of microbes, and all which that means to progressive and modern medicine, has been acquired within my lifetime.

The epoch-making first studies of Pasteur, exploding the theories of "spontaneous generation" and exposing the true nature and processes of "fermentation," date from the decade of my birth, 1860 to 1870.

Koch's discovery of the bacillus of tuberculosis corresponds with my entrance to my academic college, where as a student specializing in chemistry, I first learned of Pasteur as a fellow chemist, and, from a distant but intense admiration, conceived and realized the ambition of becoming his pupil.

Commencing my medical studies at the University of Paris in 1889, I made immediate efforts to enter the Pasteur Institute to work under its great master. It was not easy to gain admission there. The renown of its chief already extended to the scientific centers of all countries, and from all points of the world were coming the eager young leaders of science from all progressive nations for enrollment under Pasteur.

After two years, my previous chemical training and particular experience with alkaloids offered an opening where I could be useful there in preparing the pure toxins which served Professor Roux for the making and establishing of the function and efficiency of antitoxin. With this line of work ready for me, I was then admitted to the institute to know Pasteur—an acquaintance that ceased only at his death.

I believe that I was the only North American in the immense cortege assembled for our last honors to our master, assisting at his funeral rites as the United States member of the Students' Association of France as well as by right of a disciple.

You will remember that Pasteur was of very humble origin — his father, a carpenter without education, and his mother of like peasant origin. But by the self denial and determination of these parents, their son Louis was given an excellent college education and thence made his way by his own ability. While still relatively young he became a professor of chemistry at the Normal School of Paris, from which laboratory came all of the pioneer work of his fame. Pasteur was always and essentially a chemist; of such was his laboratory at all times as well as were his direct and extremely accurate methods of work and his determined close observation of all experimental phenomena. To these attributes of all good chemists he brought inexhaustible patience and courage and the highly trained hypothetical thinking and super criticism of his genius. He was far from brilliant in appearance or conversation; on the contrary he showed the bonhomie and almost simplicity of his peasant origin in his manners and talks. He was of remarkably open, honest, clear of thought, speech and action—one of the few men of the world in whom there was no guile. He was rather short, with age, a little pussy, an affable,

quiet, simple mannered man by instinct and heart, a pure and honorable gentleman, but unpolished — an uncut diamond—his poise and effort among men lacked the finish that only generations of educated ancestors can bring to the individual.

Particularly personal to Pasteur were his intellectual processes and methods of work which I cannot better describe to you than by citing many of his well known aphorisms, his continued insistence on close and accurate observation of Nature's phenomena. "Collect correct facts, correlate these with unlimited care and patience." "Form a working hypothesis, for without such guide the mind and work wander from the consecutive effort necessary for proven achievement." "In proving your hypothesis through the requisite unbreakable chain of facts, be at all times your own worst critic and opponent. Never be carried away by the active imagination that leads in hypothesis, but is traitorous in conclusions of ultimate analysis of fact."

"Refuse to admit each fact until supported against every point of fallibility that your own most hostile critical mind can bring against it." Never attempt to lead Nature, but learn to accept and rightly interpret the replies she may reveal to your assiduous inquiry and closest observation of experiment."

Pasteur often dilated upon this subject to point how frequently research work started on preconceived lines was abandoned or deviated to follow unexpected phenomena that led to discovery in quite other lines than the original plan of the work.

When I knew Pasteur most of his achievements were behind him, and he was reaping — what is so rarely given to genius—during his lifetime, the constant and increasing manifestations of the world's recognition of his genius and glory. It was widely stated and fully conceded that no man in the world's history had ever done for humanity what Pasteur had accomplished in his three decades of scientific discovery.

Pasteur had never studied medicine, but opened the door for the science of medicine. He was a teacher, with no industrial, nor commercial, nor worldly experience of any kind; but to him the great industries of brewing, of wine culture, and making silk, and the raising of sheep and cattle the world over owe not only their prosperity, but probably even their present existence. He repeatedly saved the finances of France. Such services cannot be paid in money and were never paid to Pasteur in any way other than honor. The great scientific societies of the world were proud to have his name upon their rolls of honor, enthroned in their highest place.

The German nation was first to confer upon him the degree, Doctor of Medicine (Honoris Causae) of the University of Bonn, under the hand and seal of William I (in 1868, I think)[a].

When Pasteur's son was killed in battle, during the Franco-Prussian war, this German diploma was returned to Emperor Wilhelm, with a personal letter of Pasteur which

has become world known as a human document of grief-engendered rage.

Every master has disciples and those of Pasteur, now world leaders in microbiology, were in the order named as follows for their importance to his work: Madame Pasteur and their daughter; next of equal value but widely different capacities, Duclaux, who succeeded Pasteur as director of the institute, and Prof. Grancher. The latter was the first of the medical profession to understand what was the portent of Pasteur's work and discoveries. He it was whose friendship, devotion and medical authority brought Pasteur to and through those memorable demonstrations of the cure of rabies in the human being, and who passed his life as the medical mentor of the master.

Every one admitted to Pasteur's intimacy knew the rank of his disciples. In a new religion there is always the master, then the apostles, and I like to illustrate my meaning in this way. As Pasteur, the creator of microbiology, inspired and endowed his disciples with his person, just as succeeding generations in religious priesthood receive from their predecessors the apostle's blessing by the laying on of hands, thus directly transmitted from the master. It is my privilege, directly from the hands of Pasteur to bring to you the ordination of his microbiology.

Of the disciples of Pasteur, the "beloved" was most assuredly Roux, the present director of the institute. The type of Saint Peter among the Pasteurians was marked by Duclaux. There was also a Judas among them, but as his career is largely connected with this country, it would be invidious to tell his name.

Except for summerings in the country near Paris, Pasteur lived at the institute in apartments provided for him there when the first building was erected. All the workers of the institute, from the last novice up to the top were treated by Pasteur as collaborators, and each was quick to feel the warm welcome and personal interest of the master, who was particular to show his deep and sincere interest in the work of the student, and in no way imposing his ideas or views upon the new worker. He was an absolute believer in the quality and value of individual work and never failed to show in every way his willingness and interest to aid but never to interfere in another's work. Here was no domination of the chief. I have never known a man so devoid of egotism and so eager to serve others, forgetful of himself, as Pasteur. Prompt with encouragement, a splendid listener and critic, but determined to leave each worker to follow his own lines. Every one here felt his loyalty and responded with the best he had to give in return. This chief never imposed his name with that of the real worker in any discovery, but left always all glory to whom it was due, rejoicing to be the first to appreciate its value and to show his full appreciation of his pupil. He was exceedingly anxious that each worker realize and develop his own value with complete independence of his personal scientific mentality.

Fawning adulation, misplaced efforts to make the institute a mutual admiration society were immediately stopped by Pasteur.

Every Thursday evening the fellow workers were honored by invitations to dinner en famille, by Madame Pasteur and every such opportunity was seized upon, when such luck came to us. The family was usually made up by Pasteur and his wife and daughter (the last although she was married and had a family of her own). No formality was permitted; all assembled on time, usually at seven o'clock, when dinner was at once served. Mme. Pasteur was a charming, wholehearted hostess, and presided with a suggestion of stateliness of the "Grandes Dames" of the famous courts of France.

The dinner menu was always simple, what is everywhere known as the bourgeois meal of France: Soup, hors d'oeuvres of radishes, butter, sardines, etc., followed by the roast of mutton with saute potatoes, green string beans and topped with a salad for which Pasteur made the oil dressing himself when its time for service to the guests was reached; then came the dessert—usually a pudding or custard from the hand of the hostess herself and to which all guests paid their best compliments in accepting a second portion.

Pasteur was a native of Burgundy and you may be assured that his table was abundantly supplied with the best red and white wines of that district. Sometimes these dinners were a little more elaborate and then included a fish course, before the service of the roast. When fish was served, white wines of slight acidity were drunk with it and heavier red wines were reserved to be taken with the meat. Brandy, Benedictine, etc., were offered with the coffee, but were never taken by the ladies and by few of the guests.

After the sweet dessert, fruit and cheese were passed, the cheese being taken only by men. As soon as coffee was reached, usually served at the dining table, the permission for smoking was given by the hostess, who often withdrew with her daughter soon after to be joined by the men in the parlors a little later. No one ever smoked anything but cigarettes. No ladies ever smoked.

The after dinner coffee was always made with a dash of chicory (another remnant of peasant origin and tastes in this family), but its service began the most delightful conversations I have ever heard. At this table all talked openly of their own and each other's work, ambitions and interests. There was absolutely no hypocrisy, jealousy or concealment in these groups. Here we listened to Roux's ideas, hypotheses, hopes and experiments for the discovery of his antitoxin long before any practical realization from such work seemed at all probable. Here Calmette, a beginner just ahead of me, told of his conception of tuberculosis on lines that he is now realizing after thirty years of closely applied consecutive work. There were also often vigorous discussions, of which I have never forgotten those of Calmette and Hafkin on the nature of snake venom and possible antidotes and vaccination, which took the latter to India for his great work there and brought Calmette to the opening up and present understanding of the nature of all lipoids.

In terminating these reminiscences of the early Pasteurians there is one thing which I desire to leave deeply impressed upon

your minds. This group of men were all united in their self sacrificing, devoted scientific work, by a single purpose and love of truth and its discovery. No man among them as I remember now, except the Israelite, Metchnikoff, received any pecuniary reward for his time nor for any results of his work.

Metchnikoff, totally deprived of any personal resources, received the sum of forty dollars a month from the general fund of the institute, and on this sum until shortly before his death both he and his wife were living. At the time of his writing his work on Phagocytosis he lived thus in a small attic lodging of two rooms where Mme. Metchnikoff did the work and cooking.

I want you to remember this always: That this group of workers, building the scientific foundations of the present and future medicine, were thus the pure devotees of truth and without material aid nor interest of any kind.

Realizing this of the Pasteurians, please also remember that such is the work of all the leaders of truth in Europe. The great intellects of the world there are not purchasable and work without and beyond price.

PYELITIS

By T. JUD. McBEE, M. D.
Morgantown, W. Va.

Read at a Joint Meeting of the Marion and Monongalia Medical Societies at Fairmont, W. Va., Sept. 26, 1924.

In reading this paper on pyelitis it is not my intention to present anything new, but to review a kidney condition which is almost as common as nasal catarrh and is commonly overlooked, because in making our routine physical examinations we look only for the prominent symptoms, and too frequently the only laboratory used is the one on the shelf in the back office. These patients not diagnosed, therefore not treated, and often belonging to that class of patients known as chronics, dyspeptics, neurasthenics, and in some instances submitting to about as many operations as they have anatomy upon which to operate, with no relief until thorough physical and laboratory examinations make the correct diagnosis and the indicated treatment.

The upper urinary tract is all above the cut-off muscle. It is aseptic when in the normal state and of all the aseptic tracts of the body it is more generally infected than any of them, and if any part of the tract is infected, the adjoining parts are more susceptible to the spread of infection than that of any other part of the body, therefore the peculiar anatomical and physiological arrangement of the tract makes it very prone to infection.

Experiments on animals have proven two facts: First, bacteria may be presented to the kidney in the circulating blood, pass through and be found living in the urine, and no trace left behind. Second, bacteria may be injected into any portion of the urinary tract and cause no damage. Thus we may say that the presence of infection depends upon the simultaneous and continuous presence of bacteria of accessory foci or excretory products.

The bacteria that continuously pass through the kidneys cause them to be continuously bathed

with infective products. The cause of some of the infection is the bacterial splitting up of urea into ammonia and water. The ammonia is an irritant, and causes much more severe infection than when the urine remains acid (ammoniacal infection). The chief urea splitting microbes are the common ones that must come through the kidney, viz: proteus, pyogenic cocci, influenza, pneumococci and typhoid bacteria. The colon group with exception of typhoid do not split urea.

We may say how can the kidney escape infection when it scarcely has time for its epithelium to get back to normal until along comes another infection of some part of the body with its infective products to throw off? There is no other organ of the body whose function it is to throw off the waste of all other organs.

Routes of Invasion

Bacteria reach the urinary tract through four routes: (1) The descending or excretory route; (2) the ascending or ureteral route; (3) the lymphatic route; (4) direct invasion by trauma or rupture of a neighboring abscess.

About one case in four of typhoid fever suffers mild or severe kidney infection. Colon infections are more apt to be bilateral than any other infection. Unilateral pyelitis is more common on the right side due to the location of the liver. Pyogenic cocci are more common in perinephritic abscess and colon bacilli more common in the cavity of the kidney. This is explained by Crabtree that the pyogenic cocci have a relative tendency to immediate pus production. Infections of the bladder are much more frequently of the pyogenic cocci than of the colon group.

The sources of excretory renal infections are innumerable. The bacteria may be derived from focal infection (abscess) in various parts of the body or catarrhal infections of various mucous membranes. The intestines are the usual source of bacillus coli communis while other bacteria are derived from the teeth, tonsils, accessory nasal sinuses, otitis media, furuncles, gall bladder, calculus, tuberculosis, salpingitis, hemiplegia and cerebrospinal syphilis.

Ascending infection of the urinary tract like descending infection requires a contributing cause as well as the bacterium. It may occur in three ways: (1) Up the lumen of the ureter; (2) through the lymphatics extending along the ureter; (3) by lymphatic absorption from the bladder or prostate into the general circulation, and thence by what is actually a descending infection.

Clinical Course and Classification

Pyelitis is a condition where there is pus in the pelvic cavity of the kidney. But in presenting a picture of it, it is necessary to briefly mention three other conditions it may drift into. It being understood that we cannot have acute pyelitis without nephritis, and like many other infections, one lapses into another. In this classification, like the classification of most other diseases, most authors differ. The simplest appears to be as follows: Pyelitis, Pyelonephritis, Pyonephrosis and kidney abscess.

In pyelitis the mucous membrane of the pelvis of the kidney is of velvety appearance, covered with mucous and pus. When it becomes

more severe, ecchmotic areas are often found. Function of the kidney is impaired, albumin appears, pus, bacteria and renal epithelium are found in the urine.

Pyelonephritis is more than pyelitis, and follows it. It is just what the word says; e. g., the kidney proper is involved in addition to the pelvic cavity.

Pyonephrosis is that condition in which the kidney substance is reduced to a sclerotic shell surrounding a dilated pelvis which is full of pus.

Some describe another stage when the suppurative miliary foci merge into the common sac and we have a renal abscess.

Symptoms

Mild catarrhal or subacute pyelitis may pass undetected. It is usually due to colon bacillus or some mild infection of some other parts of the body. Very common in women, especially during and after pregnancy, and is often derived from the bladder. But most cases are a little more severe, and we have a septic temperature, pain, often night sweats and loss of appetite. Physical examination reveals tenderness over the kidney. Most of the profuse sweating after typhoid fever is due to pyelitis. It is one of the important causes of unexplained fever in girl babies and parturient women.

Then we have another type which is secondary to some other infection which is usually of the upper part of the body (respiratory and acute infectious diseases). It comes on in about five days after the beginning of the disease, or after the acute symptoms subside. Say the patient is a child with one of the acute infectious diseases. They have a chill, elevation of temperature, headache, perspiration, accompanying cystitis, and lose weight rapidly.

Chronic pyelitis is a continuation of the above and therefore due to the same causes. There is general malaise, loss of appetite, loss of weight, and anemia, mild or severe. Pain and tenderness are not so marked. These cases are often mistaken for neuralgia, rheumatism, lumbago, appendicitis and gall bladder disease. (Their friends refer to them as in very delicate health). They have constant bacteriuria and intermittent albuminuria. The diagnosis is made on the presence of the bacteriuria with its mild constitutional disturbance, and is confirmed by the cystoscope. It is these cases that are most often not recognized and in the absence of treatment develops gradual renal insufficiency and suppurative nephritis.

The diagnosis of the catarrhal or subacute form is based on finding urinary infection, and excluding that the bacteriuria is not coming from the bladder. A cystopic examination is then made which reveals pus coming from ureters, and the diagnosis is backed up by use of the ureteral catheters, which examination readily shows whether we have a double infection or not, and if so, the degree of involvement of either kidney. In those cases just described coming on secondary to or as a complication of other diseases, the diagnosis is based on the symptoms, particularly the chill, temperature, sweating, pyuria and the cystitis. A leu-

kocytosis is always present, more marked, of course, in the acute cases.

Treatment of Pyelitis

Pyelitis in some instances is a self limited disease and may often disappear as rapidly as it appeared. It is those cases that do not clear up that much can be done by efficient treatment. Our inability to differentiate pyelitis with or without renal involvement makes it difficult to tell the severe from the mild at the onset, therefore treatment should not be delayed, waiting for nature to restore the normal state.

In the mild catarrhal forms some require confinement and others may be allowed to go about. It is safest to put them all to bed as soon as a diagnosis is made, advising a liquid diet, mild diuretics and medicinal treatment. An abundant amount of water by mouth or proctolysis is a great aid in the treatment of this disease, by its action in promoting elimination of bacteria and their toxins through the kidneys and through its diuretic activity. Also by virtue of its diluting properties on infectious material in the urinary tract. In aggravated cases autogenous and other vaccines are very beneficial. Blood serum has been given as has neoarsphenamine. Catheterization, drainage and lavage of the kidneys. Often catheterization dilates a stricture which was causing the disease. Should it be from a focal infection its removal is necessary.

Drug Therapy

The Mayo Clinic says: "Salol has practically no value in rendering the urine sterile in doses that can be tolerated. Neither is hexamethylenamin efficient especially in children, for urine is passed so frequently that it does not have time to form a new compound."

Alkalization of the urine only helps by the diuretic action and probably causes less absorption. It is remembered that colon bacilli will grow equally well under acid or alkaline conditions.

In acute cases of pyelitis alkalies are useful but we have no evidence of direct specfiic action. Even a saturated solution of sodium bicarbonate will not kill bacteria. Hexamethylenamin has a very definite bactericidal action in the bladder, but whether this applies to the pelvis of the kidney has not been demonstrated. Acid sodium phosphate is recommended in large doses where the urine is highly alkaline.

The Brady Urological Institute recommends mercurochrome pills two grains each by the mouth three times a day. Intra-pelvic lavage of 1% mercurochrome or 1% silver nitrate. It is believed that mercurochrome has a more definite action in the kidney than elsewhere. Meroxyol is also used in the same way.

When suppurative pyelitis occurs the patient should be treated as in any febrile condition. Sponging for high temperature and symptomatic measures for the septic condition. See that there is no stricture or other obstruction of either ureter and give frequent drainage and injections by ureteral catheters.

Recognition of renal abscess will leave no question as to the indication for operation, but first try to drain the kidney from below.

For the cases that develop into chronic suppurative nephritis, the treatment must be decided on the

indications of the individual case, which is determined more than anything else by functional capacity of both kidneys, as you will never be able to make a prognosis without knowing this. Should one kidney function very well and the other poorly, you should consider removing the kidney with the poor function, as in some cases the function of the remaining kidney will be much improved. You generally have after removal of such a kidney a draining sinus for many months.

Summary

Pyelitis is a common disease, the physiology of the kidney makes it so, and it is by far the most frequent complication of acute infections, especially in children.

Those cases caused by infective foci are very prone to chronicity and general debility.

It is much more influenced by rest in bed, hygienic and dietetic treatment than by drug therapy.

Relief is most frequently gotten by removal of the cause and catheterization, lavage and injection of the pelvis of the kidney.

REPORT OF A CASE OF ENLARGED LIVER

By CLAUDE L. HOLLAND, M.D., F.A.C.P.
Fairmont, W. Va.

Read Before the Monongalia County Medical Society

John S., age 10 months, was the only child of healthy parents. He was born at term and is said to have weighed 10 pounds at birth. There had been no miscarriages.

He was breast fed and did well up to 9 months, and had never been sick except for two or three slight attacks of coryza. At this time he was suddenly weaned because the mother discovered that she was again pregnant.

He was fed a very unsuitable diet, and after a few days began to vomit. The bowels were loose and contained undigested food. He had a slight fever each day.

A physician was called at the end of ten days. A careful physical examination showed the lower border of the liver to be 2 cms. below the costal border in the nipple line. There was some abdominal tympany. The examination was otherwise negative except for a slight fever.

He was given castor oil and kept on water for some days with the addition of nutrient enemas. These were not very well retained.

After about one week he was given cereal waters. The bowels continued loose, four or five watery stools daily. Consequently the cereal waters were continued for about two weeks. At the end of this period he was given a mixture of one part skim milk and two parts barley water, and took about 24 ounces of this mixture in the 24 hours. The stools had become a little less watery since the milk was begun.

He had been given purgatives several times in the last 3 weeks, and the bowels had been irrigated daily. He had taken bismuth steadily for some days, also a few drops of whiskey at intervals of 3 or 4 hours. His temperature had ranged from normal to 100 degrees for some days. He had lain quietly and seldom cried.

His physician had noticed a hard mass in the upper abdomen about ten days ago which had steadily increased in size. He was seen in consultation one month after being weaned from the breast.

Physical examination: He was pale and apathetic, and gave but little attention to what went on about him. The muscles were flabby, the skin dry, tissue-turgor was greatly reduced. He had evidently lost much weight. The anterior fontanelle admitted two fingers and was slightly depressed. There was no cranio-tabes. There was no rigidity of the neck or retraction of the head. No Brudzinski sign or Chvostek's phenomena. There was a marked venous hum in the neck. The pupils were large, equal, and reacted to light. The tongue carried a thin white coat. The mouth and throat were normal. There were six teeth.

The heart and lungs were apparently normal. The level of the abdomen was slightly higher than that of the lower costal margin. The lower border of the liver could be felt running obliquely across the abdomen from slightly above the anterior superior spine on the right to the costal border at the nipple line on the left. The upper border of liver dullness was at the fifth intercostal space in the nipple line. The liver felt hard, smooth, and the edge slightly rounded, it was slightly tender. The spleen was not felt. The abdomen was otherwise negative.

There was a moderate edema of the feet. The extremities were otherwise normal.

There was no spasm or paralysis. Babinski's, Oppenheim's, and Kernig's signs were not found. The knee jerks were present, and equal, but feeble. The cremasteric and abdominal reflexes were present. There was a slight, fine purpuric rash on the lower abdomen, feet, and ankles. The peripheral lymph-nodes were not enlarged. The rectal temperature was normal. Respirations 26, pulse 110. The urine was acid, S. G. 1015, and showed no albumin or sugar.

Diagnosis: The most noteworthy thing brought out by the physical examination is the marked enlargement of the liver which has developed in the last three weeks. It can hardly be due to malignant disease since the enlargement is entirely uniform. Passive congestion can be ruled out on the normal condition of the heart and lungs. Syphilis can be ruled out on the good family history. There is no reason to suspect amyloid changes. The enlargement developed too rapidly to be caused by any form of cirrhosis. The only plausible explanation for the great enlargement of the liver is, therefore, that of acute fatty changes, probably both fatty degeneration and infiltration are present.

If this assumption is correct, what has induced this condition? First, he has been practically starved for three weeks, and malnutrition has been found to be one of the commonest causes of fatty degeneration in the liver. Second, he has at the same time suffered from the absorption of toxic material from the intestines which in infancy is almost invariably accompanied by fatty changes in the liver if continued for a sufficient period. The venous hum in the neck and the marked pallor are undoubtedly due to the marked anaemia, which has

resulted from the long continued lack of food. The purpuric rash is readily accounted for by the disturbance of nutrition.

Prognosis: The prognosis in conditions such as this is always to be guarded. There is always a question as to whether the malnutrition has advanced to that stage in which the child will not be able to respond even though a proper diet be supplied. A guarded prognosis was therefore made in this case.

Treatment: It was evident that the thing of prime importance in this case was the matter of diet. It was believed also that the food offering the best possible chance of success was breast milk. This was obtained with considerable difficulty and fed from a bottle for some days. Later a suitably modified whole milk was given. In the beginning also 100 c. c. of citrated whole blood was given into the peritoneum. Fresh air and sunlight were also a valuable adjunct to the treatment. No drugs were administered.

The child made a slow but uneventful recovery.

PROPOSED LEGISLATION TO GOVERN THOSE PRACTICING THE HEALING ART IN WEST VIRGINIA

An Act to amend and re-enact Section eight-a, Section nine, as amended by Chapter thirty-nine and Chapter forty of the Acts of one thousand, nine hundred and twenty-three, Section eleven, Section thirteen and Section fifteen of Chapter one hundred fifty of Barnes' code of one thousand nine hundred and twenty-three, relating to the qualifications and examination of those desiring to practice medicine, and to advertising in connection therewith before procuring a license, and providing penalties in relation thereto, and repealing Chapter forty of the Acts of one thousand nine hundred and twenty-three.

Be it enacted by the Legislature of West Virginia:

That Section eight-a, Section nine, Section eleven, Section thirteen and Section fifteen of Chapter one hundred fifty of Barnes' code of one thousand nine hundred twenty-three be amended and re-enacted to read as follows:

Sec. 8-a. The Public Health Council, consisting of the Commissioner of Health and six other members as specified in sub-section three of Section one of this chapter, shall, in addition to the duties hereinbefore or hereinafter specified, examine all applicants for license for the practice of medicine and surgery in this state, and issue certificates of license to all applicants who are legally entitled to receive same; and said certificates of license shall be signed by the president of the council and by the commissioner of health as secretary thereof. The examination of applicants and the issuing of certificates of license thereto shall be governed by sections nine, ten and eleven of chapter one hundred and fifty of the code of West Virginia. The term "practice of medicine," as used by this act, shall be construed to be treatment of any human ailment or infirmity by any method. To open an office for such purpose or to announce to the public in any way a readiness to treat the sick or afflicted, shall be deemed to engage in the practice of medicine and

surgery within the meaning of this act; provided, this clause shall not apply, however, to regularly registered optometrists.

Sec. 9. The following persons and no others shall hereafter be permitted to practice medicine in this state. (1) All such persons as shall be legally entitled to practice medicine in this state at the time of the passage of this act. (2) All such persons as shall be graduates of class "A" medical schools as classified by the council on education of the American Medical Association and American Association of Medical Colleges and the American Institute of Homeopathy and the National Eclectic Medical Association and the American Osteopathic Association and then only from such schools when so classified as do require as a condition to entrance upon the study of medicine at least two years of academic work of collegiate grade in a standard college of arts and sciences of equal rank with the college of arts and sciences in the University of West Virginia, who shall pass an examination before said public health council and shall receive a certificate therefrom as hereinafter provided. Provided, however, that the public health council, or a majority of them, may accept, in lieu of an examination, the certificate of license to practice medicine legally granted by the state board of registration or examination or licensing board of another state, territory or any foreign country whose standard of qualification for the practice of medicine is equivalent to that of this state, and grant to the said applicant a certificate of license to practice medicine in this state; provided such states, territories or foreign countries accord like privileges to licentiates of this state. The public health council shall, at such times as the majority of them deem proper, hold examinations for the licensing of practitioners of medicine; such examinations shall not be less than two during the year, and shall be held at such points in the state as shall be most convenient for those presenting themselves for examination, or to the public health council; at such examinations, written and oral questions shall be submitted for the applicants for license, covering the following essential branches of the sciences of medicine and surgery, to-wit: anatomy, physiology, bacteriology, embryology, histology, pathology, chemistry, materia medica and therapeutics, hygiene, dietetics, surgery, eye, ear, nose and throat, gynecology, obstetrics, physical diagnosis, general medicine and contagious diseases, medical jurisprudence, and professional ethics; and the examination shall be a thorough and decisive test of the knowledge and ability of the applicants. The president and secretary of the public health council shall issue certificates to all who successfully pass the said examinations and to all those whose certificates said public health council or a majority of them shall accept in lieu of an examination as hereinbefore provided, except that in all the certificates issued to applicants who adhere to the osteopathic school it shall appear that it is for the practice of osteopathy, and such certificates after being duly recorded as hereinafter provided, shall be deemed licenses to practice medicine, surgery and osteopathy in all their branches in this state. The

public health council shall give timely notice of the time and place of holding such examinations in at least three newspapers of general circulation in this state, and all such persons wishing to present themselves for examination shall notify the secretary and comply with the rules of the public health council. No applicant for license to practice medicine in this state shall be rejected because of his or her adherence to any particular school or theory of medicine. The public health council shall call to their assistance in the examination of any applicant who professes the homeopathic, osteopathic, eclectic, or any other school of medicine, a physician of the homeopathic, osteopathic, eclectic, or such other school of medicine who is entitled to practice medicine in this state under this act, and any such physician so called to the assistance of the public health council, shall be allowed per diem and actual expenses incurred hereinbefore allowed the regular members of the public health council; provided, however, that the provisions of this and the preceding section shall not apply to physicians living in other states and duly qualified to practice medicine therein, who shall be called in consultation into this state, by a physician legally entitled to practice medicine in this state under this chapter, and provided, further, that the provisions of this chapter shall not apply to females practicing midwifery, or to commissioned officers of the United States army and navy and marine hospital service when in the actual discharge of their duties as such commissioned officers.

Sec. 11. Every applicant for licensure hereafter, shall furnish prior to any examination satisfactory proof to be passed upon by the state department of schools, that he has had a general education of not less than that given by a standard four-year high school course or its equivalent, and not less than two years of college credits in chemistry, biology and physics, all of which have been received before admission to medical study; provided, that the state department of schools may accept as satisfactory proof of preliminary education a certificate of pre-medical preliminary education from any state whose requirements are equal to those herein provided, in lieu of original school and college credentials, and shall pay to the public health council a fee of ten dollars, which fee shall not be returned to him if a certificate is refused him, but he may present himself for reexamination at any future examination, within a year, without the payment of any additional fee, and if certificate be again refused him, he may as often as he sees fit thereafter, on the payment of a fee of ten dollars, be examined as herein provided, until he obtains such certificate.

All other persons who shall be granted a license to practice medicine in this state under the provisions of section nine of this chapter, shall pay a fee of not less than twenty-five dollars to the public health council.

Sec. 13. Whosoever publishes, delivers or distributes or causes to be published, delivered or distributed in any manner whatsoever in the state of West Virginia, any ad-

vertisement concerning a venereal disease, lost manhood, lost vitality, impotency, sexual weakness, seminal emissions, varicocele, self abuse or excessive sexual indulgence and calling attention to a medicine, article or preparation that may be used therefor, or to a person or persons from whom or an office or place at which information, treatment or advice relating to such diseases, infirmity, habit or condition may be obtained, is guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars, nor more than three hundred dollars, or imprisonment in the county jail not to exceed six months, or both in the discretion of the court.

Whosoever publishes, delivers or distributes, or causes to be published, delivered or distributed in any manner whatsoever, in the state of West Virginia, any advertisement for the diagnosis or treatment of any disease by any method whatsoever before he has complied fully with the provisions of section nine of this chapter, except as therein provided, is guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than one hundred dollars nor more than three hundred dollars, or imprisonment in the county jail not to exceed six months, or both in the discretion of the court.

Nothing in this act shall be construed as to prevent legitimate and legal public notices, placards, etc., issued under the direction of the state department of health or as to prevent sending out literature by either the state department of health or the United States public health service.

A justice of the peace shall have jurisdiction to try persons charged with the violation of this act.

Sec. 15. If any person shall practice or attempt to practice medicine, surgery or obstetrics in this state, without having complied with the provisions of section nine of this chapter, except as therein provided, he shall be guilty of a misdemeanor and fined for every such offense, not less than fifty nor more than five hundred dollars, or imprisoned in the county jail not less than one month nor more than twelve months, or to be punished by both such fine and imprisonment, at the discretion of the court. A justice of the peace shall have jurisdiction to try any person charged with the violation of this act. And if any person shall file or attempt to file, as his own, the diploma or certificate of another or shall file or attempt to file a false or forged affidavit of his identity, or shall wilfully swear falsely to any question which may be propounded to him on examination, as herein provided for, or to any affidavit herein required to be made or filed by him, he shall, upon conviction thereof, be confined in the penitentiary not less than one nor more than three months, or to be punished by both years, or imprisoned in the county jail and be fined not less than one hundred nor more than five hundred dollars, at the discretion of the court.

All acts and parts of acts in conflict with the provisions of this act are hereby repealed, including Chapter forty of the Acts of the legislature of West Virginia of one thousand nine hundred and twenty-three.

TWISTED COLONS AND INVERTED COMMAS—A STUDY IN PRINTER'S INK

By VOLVULUS

Reprinted from Colorado Medicine, October, 1924.

Symptomatology: The symptoms of this painful disease consist principally of attacks of abdominal colic of sudden onset. The syndrome may be encountered daily in any editorial office—Sundays and holidays included.

Etiology: The cause of the disease can be unerringly placed to noxious material carelessly left in manuscripts by heedless authors. Such material is usually found in the following forms:

1. Ill-prepared copy marked "Dictated, but not read." (This noxious material frequently induces emesis.)

2. Sketchy notes used for a spoken address and not re-written in manuscript form. (Emesis is often projectile in type.)

3. Twenty-page articles containing two pages of information. (Dyspnea and cyanosis.)

4. Crude abbreviations: Sodabicarb, the Dr., P.S.P. test, R kidney, L.K., Sec'y., Ass'n., %, etc. (Vertigo and diplopia.)

5. Common names in capitals: Measles, Breakfast, Digitalis. (Opisthotonus and nystagmus.)

6. Profuse underlining, calling for italics, "black caps," and loud speakers. (Aphonia and laryngismus.)

7. Footnotes that should appear in the body of the manuscript. (Perspiration, chills.)

8. Left-hand spelling: Rockafellow Institute, exema, volumn, illio-cecal, posteriorally, etc. (Tracheal edema.)

9. Illustrations not furnished with titles. (Petit mal.)

10. Single-spaced typewriting, which precludes correction of any of the aforenamed errors. (Visceroptosis and grand mal.)

Treatment: The treatment of this grave and painful condition is chiefly prophylactic. There is need of more careful and considerate authorship. Fatal cases of this type of poisoning would occur less frequently if authors would seek and remove noxious material before releasing their manuscript for public consumption.

In connection with such prophylaxis, a few "Suggestions to Authors" suggest themselves:

a. Send in your top copy; not a smeary carbon.

b. Write on whole sheets, not half-sheets of paper.

c. Write your name on every page.

d. Furnish a title for each illustration, but do not write it across the face of the picture.

e. Make your references clear. Do not quote "Dr. Smith," but quote "Dr. Iota Magnus Smith." In giving references do not conclude them with a pencilled question mark. Do a little more work on the job.

f. In submitting a manuscript based on a paper read at a meeting, state in footnote where and when the address was given. Thus:

Read at the Annual Meeting of the Colorado State Medical Society, October 7, 8, 9, 1924.

This footnote should appear at the bottom of the first page of the manuscript.

g. Conclude all manuscripts with a brief summary.

h. Do not plan to make the final draft of your paper on the printer's proof. Use the proof only to show printer's errors.

i. Prepare bibliographies and references with care.

Give the author's initials or Christian name as well as his surname. Follow with a colon (:) and then with the name of the book or article.

In the case of a book, give the edition, unless the edition referred to is the first, then give the page referred to. Follow with the place and year of publication, and the name of the publisher.

In the case of an article, follow the title with the name of the journal. If abbreviations are employed, use those approved by the American Medical Association. (See "Suggestions to Medical Authors and A. M. A. Style Book," published by the American Medical Association, 535 North Dearborn Street, Chicago, at a cost of twenty-five cents, or lent without charge by Colorado Medicine). Follow the name of the journal with the year of publication, and then with the volume and page number.

Follow the general form given below:

1. Lovett, Robert W.: The Treatment of Infantile Paralysis. Second edition, page 78. Philadelphia, 1917. P. Blakiston's Son & Co.

2. Timme, Walter: Lectures on Endocrinology, pp. 48-62. New York, 1924. Paul B. Hoeber, Inc.

3. Favill, John and Charles F. Rannick: A Case of Family Periodic Paralysis, Archives of Neurology and Psychiatry, 1924, vol. 11, p. 674.

4. Joslin, Elliott P.: Diabetic Problems of Today, Jour. Am. Med-Assn., 1924, vol. 83, p. 727.

A DIGEST OF CHANGES BETWEEN THE 1921 AND 1924 TAX LAWS

By H. ARCHIBALD HARRIS
Certified Public Accountant

The following digest has been compiled by W. M. Swindell, Jr., Economist, and Bertha M. Holmes, Washington manager, both of the staff of Archibald Harris and Company, under the direct supervision of Mr. Harris. Archibald Harris and Company are counselors on Accounting and Taxation for the Illinois, Indiana and Tenessee Bankers Associations. They also advise a number of industrial and professional organizations on accounting and tax matters.

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Dividends—Taxable Date

The 1924 Act does not specify the date at which a dividend is taxable. This was Section 201 (e) of the 1921 Act and was put in as the result of much discussion over the old law.

Gains or Loss from Sales and Exchanges, Recognition of—

1924 Law has not the provision of the 1921 law, for cases in which property received in an exchange has no readily realizable market value.—Section 203.

No gain or loss is recognized on exchange of property held for productive use in trade or business or for investments (with same exceptions as in 1921) except that in 1924 Act if common stock in a corporation is exchanged solely for common stock or preferred is exchanged solely for preferred stock of

same corporation no gain or no loss. —Section 203 (b) (1).

No gain or loss if stock or securities in a corporation a party to a reorganization are in the reorganization exchanged solely for stock or securities in any corporation a party to the reorganization. —Section 203 (b) (2).

(Old law provided for no gain or loss when in a reorganization a person received such stock or securities in exchange for "any stock or securities owned by him.")

No gain, no loss on transfers of property by any person or persons to a corporation solely in exchange for stock or securities of the corporation if same person or persons are in control immediately after the transfer (Control same as in 1921 Act.)—Section 203 (b) (4).

If property described in 203 (b) (1) (2) or (4) just above is received together with money or property of another nature, then gain is recognized but not to exceed the sum of money and the fair market value of such other property described in 203 (b) (1) (2) or (4). —Section 203 (d) (1).

No gain to a shareholder who in a reorganization does not surrender his old stock, but receives stock or securities of any corporation a party to the reorganization.—Section 203 (c).

In all the foregoing cases of mixed property no loss shall be recognized even though a gain may be recognized.—Section 203 (f).

The new law prohibits a corporation from claiming that a distribution (in pursuance of a plan of reorganization) of its stock was a distribution of earnings available for future distribution and does not allow such distribution to be considered in determining the taxability of such future distributions.—Section 203 (g).

Gain or Loss, Depletion and Depreciation—Basis for Determining

If property acquired after 12/31/20 by transfer in trust (not including a trust by bequest or devise) is sold basis is same value as would have been used by grantor, proper adjustments being made for any gain or loss recognized when the transfer was made.—Section 203 (a) (3).

This value is not to be used in determining gain or loss on trust property transferred during life by an individual under such conditions as rendered the property subject to estate tax at the time of the grantor's death or on the sale of property passing under a general power of appointment by a decedent whether by will or by deed executed in contemplation of death.—Section (a) (3).

In the case of a sale of property received in exchange which would be wholly or partially exempt under this law, the basis shall be the cost or 3/1/13 value of the old property with proper adjustments for any gain or loss accounted for at the time of the exchange.—Section 204 (a) (6).

Bases are (1) cost, (2) bases outlined above or (3) March 1, 1913, value (Basis No. 2 is new). In determining March 1, 1913, value of stock due regard shall be given to the fair market value of the assets of the corporation. — Section 203 (b).

Basis for depletion, depreciation or obsolescence same as basis for determining gain or loss except that depletion in the case of mines, oil or gas wells may be in certain cases based on discovery value.—Section 204 (c).

(1921 methods of determining gain or loss on sale of property owned on 3/1/13 omitted.)

Interest on Refunds and Credits

Interest at 6% to taxpayer on refunds, credits and penalties illegally assessed runs from date such tax penalty or sum was paid to date of refunds, or in case of credit, to due date of the amount against which the credit is allowed unless such amount is an additional assessment, then to the date of the assessment of that amount.—Section 1019.

Losses, Net

A net loss shown by a return for a fractional part of a year may be carried forward to the next year or two under 1924 law. Rulings under previous laws allowed only net losses sustained in a full twelve-month period.

It looks as if this action of Congress may lead the Treasury Department to reverse its rulings for prior years and allow net losses for a fractional part of a year.—Section 200 (a) (1).

In computing a net loss a taxpayer uses all deductions connected with his trade or business plus any deductions allowed on his income tax return and not connected with his trade or business to the extent of gross income not derived from such trade or business.—Section 206 (a) (1).

In determining net loss deduction for depletion shall not exceed the amount which would be allowed if computed without reference to discovery value.—Section 206 (a) (3).

"Gross income" for net loss purposes includes all tax free interest received less the amount of interest paid or accrued and losses sustained and not allowed as a deduction from gross income.—Section 206 (a).

Net losses for 1922 are to be handled under the 1921 Act.—Section 206 (e).

Net losses for 1923 are to be determined under 1921 Act but applied to 1924-1925 income according to 1924 Act.—Section 206 (f).

In case of a fiscal year beginning and ending in calendar years having different laws the net loss for such fiscal year shall be the sum of the proportionate part of a net loss computed under each law which corresponds to the part of the fiscal year falling in each calender year.—Section 206 (g).

Limitation on Assessments and Suits by the United States

With a few exceptions internal revenue taxes shall be assessed within four years after they become due and any suit for their collection must be brought within five years after they become due.—Section 1009 (a).

In case of fraud, or a failure to file a required return or of a wilful attempt to evade tax, assessment may be made or a suit for collection may be begun without assessment, at any time.—Section 1009 (b).

Where assessment made in time suit may be begun within six years after assessment.—Section 1009 (c).

Limitations on Prosecutions

Limitations on prosecutions for defrauding or attempting to defraud the United States shall be six years.—Section 1010 (a).

Limitation for Suits and Proceedings by Taxpayers

Suit for recovery of taxes or penalty may be brought whether or not such taxes or penalty was paid under protest or duress.—Section 1014 (a).

Any taxpayer who has been charged with fraud for any year between 1916 and 1921, both inclusive, may now reopen claim for refund or credit for any of those years which were disallowed because the taxpayer failed to come clear of the fraud charge.—Section 1015.

Penalties

Penalty for willful failure to pay or make return, $10,000 or imprisonment not more than one year or both.—Section 1017 (a).

For willful failure to collect and pay over tax or willful evasion of tax $10,000 or imprisonment not more than five years or both.—Section 1017 (b).

For willful aid or assistance in preparing false or fraudulent return affidavit or statement $10,000 or five years or both.—Section 1017 (c).

For willful failure to pay or collect or to account for and pay over any taxes (other than income, estate or gift taxes) or for willful attempt to evade payment of such taxes shall be in addition to other penalties, 100% of the tax evaded. —Section 1017 (d).

Reduction of Income Tax Payable in 1924

1923 taxes reduced 25% for all taxpayers other than corporations. —Section 1200 (a).

If entire 1923 tax has been paid 25% shall be credited or refunded. —Section 1200 (b).

If tax being paid in installments the 25% shall be allocated to the four installments. The amount prorated to any installment not yet due shall be used to reduce such installment.

The amount prorated to any installment past due shall be used as a credit against the installment next falling due.—Section 1200 (c).

Provision is made for credit in case taxpayer has an extension of time for payment.—Section 1200 (d).

Provisions are also made for adjustment of deficiencies and overpayment.—Section 1200 (e), (f), (g).

Credit provided for 25% of that part of fiscal year (1923 or 1924) tax applicable to calendar year 1923.—Section 1201 (a).

Twenty-five per cent credit allowed for part of year 1923 if return covers fractional part of year. —Section 1202.

Refunds ond Credits

Claim must be filed within four years after tax was paid instead of five years after return due as in 1921. The credit or refund shall not exceed the tax paid during the

four years immediately preceding the filing of the claim or if no claim was filed then during the four years immediately preceding the allowance of the credit or refund.—Section 281 (b).

If 1917 or 1918 waivers filed, claim may be filed at any time before April 1, 1925, or within four years from the time the tax was paid.—Section 281 (e).

Any claims now on file are valid and claims for 1919 or 1920 may be allowed if claim is filed before five years after return was due.—Section 281 (f).

Returns—False or Fraudulent

In case of false or fraudulent returns or failure to file a return, tax may be assessed or court action may be brought at any time.—Section 278 (a).

Any deficiency due to a change in an amortization deduction under either 1918 or 1921 Act may be assessed or a proceeding in court without assessment may be begun at any time.—Section 278 (b).

Where assessment made in time provided by law, such tax may be collected by distraint or proceeding in court begun within six years after assessment. Court action may be begun without assessment at any time before the expiration of the Statute of Limitations.—Section 278 (d).

Returns to be Made Public Records

If the Ways and Means Committee of the House, the Senate Finance Committee or a Special Committee of either House of Congress calls upon the Secretary of the Treasury for any income tax returns it shall be his duty to give such committee all data contained in or shown by such returns.

Proper officers of a State may upon request of its governor have access to the returns of any corporation (not any other taxpayer) even though such state does not impose an income tax law.

Commissioner may add to the public list of taxpayers' names and addresses kept in the Collector's offices the amount of tax paid by every taxpayer.

INDIVIDUALS

Capital Gains and Losses

Definition capital loss same as 1921 Act, except does not specify sale or exchange shall have been consummated since 12/31/21.

"Ordinary deductions" defined as all deductions under Section 214, except capital deductions.

Capital net gain is the excess of capital gain over sum of capital deductions and capital losses plus (a) any excess of ordinary deductions over gross income not including capital gain. (a) is new.

"Capital net loss" means the excess of the sum of the capital losses plus capital deductions over the amount of capital gains.—Section 208 (a) (5).

Under the new law it appears that property held for personal use may be a "capital asset" under this section. The 1924 Act precludes property held primarily for sale in the course of the taxpayer's trade or business from being considered "capital assets."—Section 208 (a) (7).

Taxpayers other than corporations are allowed capital losses only to the extent of capital gains.—Section 206 (a) (2).

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, Huntington - Editor-in-Chief
WALTER E. VEST, Huntington
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HARRY M. HALL, Wheeling
} Associate Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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EIGHTEENTH ANNUAL SESSION OF SOUTHERN MEDICAL ASSOCIATION

It is to be hoped that many West Virginia physicians will find it possible to attend this meeting, to be held in New Orleans, November 24th to 27th.

When we think how this organization has increased its membership five hundred percent in ten years, we cannot but feel a great pride that West Virginia physicians are eligible to membership. Next to the A. M. A. it is probably the largest medical organization in the world. In point of enthusiasm and accomplishment it equals even the parent body.

Every physician in our state should belong to this association and attend its meetings whenever possible.

The purpose for the existence of the Southern Medical Association is "For the advancement of medicine, surgery and public health in a greater South."

A DISEASE OF MEDICAL ESSAYISTS

Now that the various county societies have taken up their work after the summer vacation, we can expect to have a larger amount of material, sent in from their meetings, for publication.

This is as it should be. We are always delighted to have the papers prepared and presented to the various societies by the members of the profession in West Virginia. They are most excellent papers, as a rule, and present to our readers much valuable information in the way of experience and opinion. We have a high opinion of the ability of our men in this state along professional lines.

When we come to the preparation of these papers and the shape in which they are presented to us for publication, we cry for help. Often second or third copies (carbon), smeared and undecipherable, reach us. Lines single spaced, so that corrections can scarcely be indicated because of lack of room to do so, are trying to our editorial soul. The commonest words incorrectly spelled. Another fault very common is that of a whole paragraph, frequently ten to fifteen or twenty lines, all one sentence; no punctuation, not anything to indicate just what is meant. It is as if the author had made a mental plunge into deep water and was trying to travel as far as possible without coming up for air.

On another page is reprinted from Colorado Medicine a most interesting description of this very prevalent disease of the medical fraternity. It is clearly defined; the symptoms are accurately noted and the treatment clearly outlined.

We trust that perspective essayists will read this article and familiarize themselves with the treatment of the disease in its incipiency.

WHERE WILL IT END?

The following has been clipped from one of our sister State Journals. It is reprinted because we know that the same organization has been soliciting physicians in West Virginia since a number of them in Huntington received the two pencils.

We often wonder just where this solicitation is going to stop. There is hardly a day but we receive letters of this type or are called upon by individuals to give to this, that or the other cause; each the most worthy of all if we are to believe their earnest advocates.

Possibly it is that physicians are the tender-hearted among the community's citizens, or that we have the reputation of being easy. How much do physicians give? It foots up quite an item in the aggregate at the end of the year, we suspect.

There is not a physician in West Virginia who does not give many, many dollars in service each year, hundreds, yes thousands, of dollars to those in need of his help, who have no means.

Our personal opinion is that physicians should disregard such solicitations, most frequently put in the form of a demand.

The following proves how unworthy so many of these calls are:

"IMPROPER SOLICITATION

"Physicians throughout the state and possibly throughout the country recently received two lead pencils

from an organization called the National Disabled Soldiers League, New York, with a strong appeal for a contribution of one dollar for the help of the disabled soldiers. The remark in the letter that it was the hope of the writer that no physician would be so mean as to keep the pencils and not contribute the dollar was a clever method of obtaining the desired results in many instances.

"A clipping from the Disabled American Veterans Weekly dated Washington, August 15, and issued by General Hines, states in part: 'You are advised that this organization does not have any standing before this bureau, and is not recognized in a co-operative relationship as are the American Red Cross, the American Legion, the Disabled American Veterans of the World War, etc. The Bureau would prefer not to comment on the form of solicitation concerning which inquiry is made, as it is at present the subject of investigation.'

"Further information has been given out by Adjutant Stafford King of the American Legion, Department of Minnesota, to the effect that 'So far as I am able to ascertain, the National Disabled Soldiers League is organized for the purpose of securing moneys, and according to my information has no other purpose. It may be legally constituted or not, but in any event the time has not yet arrived in the United States when it is necessary to solicit funds for the actually disabled man by any such manner of solicitation. I would suggest that you take the necessary steps to inform your medical associates that this league deserves no constructive assistance'."
—Minnesota Medicine.

AGAIN FAKE DOCTORS

The following advertisement appeared in one of our West Virginia daily papers:

Chiropractic First, Not Last

Question—"As one of your patients who employs Chiropractic for all kinds of family ills, allow me to suggest that you tell people more of what you can do for acute ailments. People need this knowledge."

Answer—We thank you for the suggestion. Although we have answered inquiries along this line before, we are glad of another opportunity. Sick folks should not jeopardise their lives by taking Chiropractice as a last resort. How much more sensible to call the Chiropractor first. How much suffering, anxiety, loss of time and expense might be saved in the Chiropractor is called in to attend the acute ailments, such as fevers, cold, inflammations, etc. You know that Chiropractic can restore health after the disease has continued many years and has been pronounced incurable. Then isn't it reasonable to suppose that much quicker and better results could have been obtained had we been consulted in the beginning? When sickness first appears have your spine examined.

This advertiser is located in an adjoining state, Ohio. At the recent primaries he was a candidate for the Legislature of that state. We are informed that he was defeated.

Advertising of this type appears in all of the papers in larger cities in West Virginia. Here in Huntingington a full page, with illustrations, is carried on the cover of the city telephone directory. This is

also carried and paid for by a Chiropractor.

Physicians have a feeling of contempt for advertising methods of this type. We do not feel that it is an "ethical" thing to do. Still it remains that because we do feel this way the layman does not know of the great accomplishments of medical science and does gain an exaggerated idea of the ability of the "ics," "isms," "pathies," and "ists" of the clan of fakery.

Our profession is wrong in its attitude in this matter in that we do not undertake to educate the people. It does not do for us to attack these fakers as individuals. They bring to play instantly that cry of "jealousy." The layman heeds that cry far more than we care to admit. He thinks it is because we are jealous that we disclaim the ability of the faker.

We must make it our business to educate people to know that no one is safe to trust their lives and the lives of their loved ones to one with less learning and training and skill than is the minimum requirement which we make of physicians before we license them. Even with this training we do not always prove to be infallible.

It may be of interest to know that when the advertiser in the telephone directory of Huntington had typhoid, he had a regular physician to treat him. Of this no mention is made.

In view of our ideas along the line of education in these matters, we have secured permission from the Curtis Publishing Company to prepare reprints of the article on "Fake Doctors" for distribution among our own patients. In this way we hope to get them to thinking. We feel that the members of the whole medical profession should make some similar effort—possibly not in the precise way that we are going about it, but in some way try to educate the laity to the dangers of illy prepared healers of any type.

The Kanawha County Medical Society has ordered ten thousand of these reprints for distribution by its members.

In line with this weakness in preparation to practice the healing art is the proposed amendment to the medical practice act. This appears on another page of this issue. It is to be hoped that you will each carefully go over the provisions of the proposed amendment. After you have done so, it is desired that you will write to Dr. C. A. Ray, Charleston, W. Va., telling him of any changes you think should be made, or giving him any suggestions you may have in mind.

It is the intent of this proposed amendment not to prohibit anyone from practicing the healing art of any particular school or system he may desire. It is the intent of the bill to demand, for the protection of the sick, that anyone proposing to treat them shall have had sufficient training in the fundamental, the absolutely essential, branches of healing to be capable of understanding and directing the treatment of diseased conditions of the human body.

COUNTY SOCIETY REPORTS

September 11th, 1924.

A regular meeting of the Cabell County Medical Society was held in the parlor of the Frederick Hotel on the evening of September 11th,

1924, the president, Dr. T. W. Moore, presiding.

Drs. Brammer and Vest reported a series of cases occurring in this vicinity that were diagnosed as being a mild form of chronic anterior poliomyelitis. Drs. A. K. Kessler, Vinson and Biern discussed the cases.

Dr. R. M. Bobbitt presented a Treasurer's report showing a balance of $423.23 in the treasury

Dr. Byrd Hunter failed to appear on the program as planned, due to the fact that he had lost the paper to be presented. In place of the paper, he further discussed the cases resembling poliomyelitis referred to above.

The names of Dr. Donald Kessler and Dr. C. E. Latham were presented for membership and were referred to the Board of Censors for the customary action.

The program committee outlined the program for the year.

The communications that were read required no action by the society.

There being no further business the meeting adjourned.

OSCAR B. BIERN, Secretary.

September 25th, 1924.

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of September the 25th, Dr. T. W. Moore, the president, in the chair.

On motion of Dr. J. R. Bloss, which was seconded, it was moved that the society dispense with the reading of the minutes. Motion carried.

The application of Dr. G. R. Shelton, of LeSage, W. Va., was presented to the society and referred to the Board of Censors for approval.

Dr. Mont R. Reid, of the Surgical Section of the Cincinnati General Hospital, was essayist of the evening and read a most interesting paper the title of which was "The Present Treatment of Thyroid Affections from a Pathological and Physiological Viewpoint." He also showed several interesting lantern slides illustrating various points in his paper. Drs. Leo Bean, of Gallipolis, Ohio, McKenzie, Strange, Guthrie, and Biern discussed this paper, Dr. Reid closing.

The society also had as its guests several doctors from Portsmouth, Ohio, Dr. Muffin, president of the Hempstead Academy of Medicine, making a brief talk, inviting the members of our society to their district meeting on October 13th.

Dr. Bloss presented a letter to the society from the Ohio County Medical Society, which they have had written to the various candidates to the State Legislature, ascertaining their views on medical legislation. This letter was referred to the special Legislative Committee for action.

After the conclusion of the regular program the meeting adjourned to an excellent buffet supper that was served in the assembly hall.

Attendance 51.

OSCAR B. BIERN, Secretary.

MONONGALIA COUNTY

At a recent meeting the Monongalia County Medical Society was entertained by members of the Marion County Medical Society. The Fairmont men gave a most instructive and useful series of pa-

pers. There were five men on the program but one of them was unable to attend. This is the first time there has been an exchange of programs between our societies. Monongalia County Medical Society will put on a program for the Fairmont people in September. There will be three papers by our men on this occasion. These papers will be:

Pneumonia—Dr. S. S. Wade.

Pyelitis—Dr. T. Jud McBee.

Significance of Nasal Anatomy and Physiology—Dr. H. B. King.

The papers given by the Fairmont physicians were:

"Post-Operative Parotitis," by Dr. L. D. Howard. This rare condition was treated exhaustively by this essayist. It was discussed by the members of both societies. We were well pleased with the presentation of the subject.

"Ethylene—Its Usefulness as a General Anesthetic," by Dr. L. D. Norris. He entered into a discussion of its history and general application to every day uses. He brought out many new things to most of us. Dr. Tucker took up the discussion of this paper in a systematic and thorough manner. Dr. Henry, the old war horse from Fairmont, doubted if the new gas would ever take the place of ether. The discussion was taken up by several members. The paper was highly appreciated by all.

Dr. Holland gave a case report of an enlarged liver of a baby ten months old. He found the child with a very much enlarged liver, due to improper feeding or rather to starvation. The child had been improperly fed and became very emaciated, as the abdomen became larger and larger. By proper diet and without any medicine, the child made a prompt recovery. The case was extremely interesting to the whole medical fraternity.

Dr. L. C. Davis gave an extremely useful paper on "Intravenous Medication in Local and Systemic Infections." The paper was instructive to all of us, and contained many new points to most of us. The paper was discussed by various members, led by Dr. T. Jud McBee. His paper was as good as the best.

At our September meeting Dr. C. A. Wingerter of Wheeling delivered an address on the subject of Hysteria. It has been the policy of our society to bring in a few good men from outside each year to give us lectures. The balance of the time we entertain ourselves. We find that almost every man is willing to do his part if properly approached, and our men have been especially responsive this year. Dr. Wingerter was awarded the palm for the most erudite and entertaining lecture delivered this year. He surely has the power to hold his hearers entranced with the delightful style of his talk, and the profound knowledge he shows in the subject.

Our City Hospital, under the management of Dr. Hardy, is in a prosperous condition. He seems to have recovered entirely from his attack of sleeping sickness last year. Dr. W. H. Howell, who has been connected with the City Hospital for more than a year, has opened up offices in Morgantown, and is doing considerable work.

Our County Hospital is in a better shape now than ever before. The staff is working in dead earnest to make a practical success of the institution. They now have a

technician there who is doing most of the work that is done in high grade hospitals and is giving eminent satisfaction.

Dr. L. S. Brock will entertain our society in October with a history of the medical profession of Monongalia county.

Three of our men have been sued for one hundred thousand dollars damage by a disgruntled patient whose broken bone is alleged to have been improperly attended to.

C. H. MAXWELL, Secy.

OHIO COUNTY

On Friday night, October 10th, we had with us at the meeting of the Ohio County Society, Dr. Wells Teachnor, Sr., of Columbus, Ohio, whose subject was, "The Office or Ambulant Treatment of the More Common Ano-Rectal Diseases." Discussion by Dr. A. Noome and Dr. D. A. Aikman.

In the Doctor's closing remarks he said: "Let me tell you, gentlemen, when you say you do most of your 'pile cases' in the hospital, that if I would tell a lot of people that who come to me, they would go right out of the office and not come back. But they would go to an irregular doctor" (he mentioned his name) "and it is likely he would help them and back they might come and show me up. People are afraid of major operations in this region, not only because of pain, but incontinence of feces. Furthermore they can go about their business whereas the major operation holds them up ten days to two weeks."

The doctor uses a ten to twenty percent carbolic acid in almond oil solution. He emphasizes the fact that the rectum is always empty in a normal state. He stresses that the pile area may be cauterized, cut or injected without pain. He makes sure he has a good hold on pile, cleans it off, then with syringe loaded full (no air in syringe at all) he injects seven or ten drops of solution—does it repeatedly if required. (States patients always willing to return). This absorbs nothing. The action is due solely to scar tissue and resulting pressure. For twenty years he has done this with good results—but it has its limitations. Never to be used in strangulated piles. Never in those half or wholly covered with integument. Never in presence of inflammation.

He condemned Whitehead operation as a routine method—believes in ligature and excision method. Does not use clamp and cautery, but admits its usefulness. Does many in office, sends them to a hotel for a couple of days. No hospitals in many cases. States a rectal specialist must first be a general surgeon.

Dr. Ackerman reviewed the general subject with reference to part played by postal circulation. Dr. Hupp followed Dr. Ackerman. He said that he saw the speaker's point of view, but said the "clamp and cautery" had been successful around here. This was the way the paper generally was accepted. Most men felt it was as difficult to get patients back to your office for repeated injections as to hospitalize them. Furthermore injecting is a matter of dexterity attained after long practice, and by an expert. So it was thought if you have a patient who will not be operated, and

is bent on going to a quack, it would be a good thing to try the doctor's advice.

In the election at North Wheeling Hospital recently, Sister Xavier was appointed Sister Superior. There are many people who have the notion it does not make any difference who is appointed head in a Catholic hospital, it will run just the same, and it is true they are surprisingly free from dependence on any one person. There are people who believe that the Bishop in a Diocese probably runs a hospital in the course of his duties, like he would his churches. If it were so, probably no Bishop would ever come within twenty years of reaching the venerable ages many of them attain.

The writer was an interne two years in St. Vincent's in Cleveland, and he well remembers Sister Charles as without a doubt one of the greatest executives he has ever seen in any walk of life. The Bishop honored her with rare visits of inspection, and we feel he often wished he had her equal in some of his other vocations. They are placed with power to make a success of the institutions, and executives they must be. It is true they are free from much interference from the outside seen in Protestant hospitals, but they are often possessed of more executive ability and fairness than those who have made it their life's calling. We have remarked in these columns before of the high quality of the operating service in North Wheeling. It was largely due to the splendid ability of Sister Xavier. To direct the "operating rooms" so you will earn the reputation of playing no favorites is in our humble opinion one of life's greatest achievements. To make the surgeon who does one operation a week feel he is to be served the same as those doing a dozen a day is still greater. Sister Xavier enjoyed both these. The choice is certainly well received. Sister Joan takes her place. Sister Girard the medical wards.

Miss Long returns after an absence to the obstetrical service. This is popular in the extreme. She has the confidence of the profession. A rest room for doctors with a couch to lie down upon has been established near the delivery room. This to our mind is a graceful gesture.

Dr. Davis, formerly pathologist at North Wheeling, has retired to go into private practice. Dr. Wm. McClure has consented to devote his energies to that department. Dr. McClure is a successful practitioner and a good pathologist as well—a rare combination. Furthermore he is positive in his findings, which is refreshing. We believe he makes the most beautiful sections we have ever seen. Beautiful is the word. They look like book plates, and are veritable "works of art."

The staff of North Wheeling met in session Wednesday night, with a large attendance. Dr. Michael Gaydosh read a paper on "Biochemistry," which has been reported to us as one of the best on that subject delivered in some time. Dr. Sammons discussed it. Two men who can make a good, interesting evening out of biochemistry are entitled to the very best applause their colleagues can give, and we hear they certainly received it.

If it were possible to possess the ability to artfully produce it, no better contemporary history of the

medical profession could be given than just a faithful account of what goes on in the mornings between surgeons and medical men in the various "wash rooms" of hospitals. Then if ever would come the perfect record. There have been times when this writer has lost—as others have—his faith in the ultimate good of the medical profession. You know the feeling has come to you as some account has appeared where someone has seemed at least to deliberately have taken in a ruthless manner the patient of one of his colleagues. But it will disappear when the following morning you are gathered together in the "wash room" and the men who are going to operate—perhaps momentously—and those who have finished come back, and the other men who have just "dropped in" engage in the "heart to heart" spirit that nearly always prevails there. We have the liveliest kind of pride in our profession when we see a "gathering in a wash room." Nothing at all in this world save the congregating of a general staff in war times can compare with the average manliness of it. The blatant pride, the superficial ego, the inflated personality, the "Me and God" manner—all are gone. Surgeons who have finished resection of a Gasserian Ganglion tell their mistakes as casually as the tyro does his faltering removal of some adenoids. You can cry out your discouragements and an eye almost wet with sympathy will try to match you in sheer attempts of comfort. The hard looks of some seemingly overbearing old surgeon will melt with kindliness as some newcomer suggests the barrenness of his first year. Men who have hated each other out in the open have learned to like each other through their daily meetings in so close a contact in the "wash room," after they knew each other better. We are sorry for the men away out in the country who miss this daily relationship, and suggest they find a substitute. So some of us were gathered today and we started in on the trials of our profession. Joe Caldwell grew talkative on the advertising of our profession. You may have remembered, Dr. Bloss spoke of this on the Van de Water articles in the Ladies' Home Journal. Caldwell believes we ought to collectively advertise in the daily papers pretty much as Copeland does in his syndicate articles. He believes the chiropractors give out their impressions this way and catch a great many of those casually unable to make up their minds. Not one man doing it, but collectively doing it. The matter is worth a serious thought and emphasizes once more our new awakening. Debate became lively. Many new thoughts were added, and when it was all over it was surprising how thoroughly the matter had been covered. When we can afford it, we should like to have a stenographer go with us to these gatherings, collect them and publish them as "Memoirs of the Wash Room." While it might not be policy to put them out where the world might read, yet if it did we are sure a larger measure of the world's affection would go to the much misunderstood medical profession.

Apropos of the foregoing we believe the weak part of cults is that their members have no common affection for each other. No common ethics which have weathered

the ages. Bound they are together, to be sure, but it is after all mercenary. All callings—even thieves have organizations—but a profession welded together like the medical profession is, as revealed in "wash room" gatherings, survives all the onslaughts of whatever kind YESTERDAY, NOW AND FOREVER.

In our younger days we were inclined to scoff at those who diligently collected and read what others do and say. We were young and simply did not know. We might have recalled what an absolutely indispensable object a hand mirror was but we didn't. There are men who have a penchant for this and they are truly artists. Sometimes they actually do more good than the originators. Each year Dr. Hupp comes back from his travels and gives to the staff of the Ohio Valley Hospital the benefit of his researches. This year it was Montreal. He thinks the hospital in which Sir Henry Grey operates the best he has ever seen. Sir Henry Grey has notions of his own, and while others are doing these same procedures, yet he has long since tested their workings. Chief among these are that he closes his "pus appendical" cases and the gangrenous ones as well; does not believe in drainage, and does not, with rare exceptions, use tubes or wicks in any form. Dr. Hupp, once a great believer in the wick drains, trimmed off after his own method, was fair enough to say Grey's results were excellent. As we understood Dr. Hupp, Sir Henry makes a long incision one inch or so from median line, brings into view practically all the gut, removes the gangrenous or pus appendix, then proceeds to investigate all the abdomen, sponging with dry sponges all the suspicious parts; he is dexterous and quick, and in bad localities he sponges until the sponge appears moist with the evident flow of lymph—after he feels it is clean he sews up and puts a sort of varnish-like dressing on somewhat like the usual collodion one. He has implicit confidence in that much-abused member, the peritoneum; believes it is your friend. Dr. Hupp says he has the flat abdomens and quiet patients on the third day with surprising regularity. Many men around here, including Dr. Schwinn, have the same views on the drainage question, believing a drain does not work after twenty-four hours at best, and invites adhesions. Others aver they would not sleep at night if they had not put in a drain. The "wash room" discussion led to the fact that most men felt they got no results from tubes in the bowel in intestinal obstruction, and that although they read of men with hundreds of perfect results in this procedure, no one there was able to duplicate them. One good man said he felt like allowing all the bowel to return in the abdomen and sewing up as he used to do. So for two days after Dr. Hupp had talked, the drainage question was discussed. What more could any man do for his fellows? Real progress was made. More adomens will be closed—maybe all will not be with good results—yet, as we repeat, real light was shed on the subject.

The Committee mentioned in the last month's Journal met the Republican members who are candidates for the Legislature and explained the letter (also there printed). The session lasted an hour,

and we believe the air was considerably cleared.

There was one thing related by one of these candidates that might be food for thought for those who are still unconvinced. This man said he had two friends, one had graduated at a school turning out chiropractors, the other at a very high class medical college. He stated he personally knew which was the more successful by far. You would not be elated. It was explained to him how this could be and still mean nothing, but it is one more reminder how a portion of the public looks at the matter.

HARRY M. HALL, Reporter.

STATE AND GENERAL NEWS

LEWIS COUNTY

GUY R. POST, Reporter

Dr. R. E. Carey, assistant physician at the Weston State Hospital for Insane, has returned from a two weeks vacation, spent in eastern cities.

Drs. S. H. Burton and G. M. Burton have been appointed school examiners for the Weston independent districts.

Dr. D. P. Kessler has been named the Democratic candidate for member of the school board of the Weston independent district.

Dr. and Mrs. A. F. Lawson are the proud parents of a fine son, born September 24th, 1924.

Dr. J. G. Pettit, superintendent of the State Tuberculosis Sanatarium of Terra Alta, W. Va., has returned after spending a few days with Dr. C. C. Denham, superintendent of the Weston State Hospital.

MARION COUNTY

CLAUDE L. HOLLAND, Reporter

Dr. J. C. Collins, of Grant Town, is in Washington, D. C., for a few days.

Dr. and Mrs. Logan Carr are spending several days with their son, Dr. H. H. Carr, and family at their home and will shortly return to Baltimore.

Dr. H. H. Carr has returned from Baltimore.

Dr. F. W. Vance, of Mannington, has left on a trip to French Creek and the Cheat Club on the Cheat River.

Dr. S. E. Langfitt and Dr. Oscar Tate of Huntington and Dr. S. V. Langfitt and family of Clarksburg were the guests of Dr. and Mrs. C. L. Parks at their home in Short avenue.

Dr. and Mrs. G. H. Brownfield left for Oklahoma City, Okla., where they will be the guests of Dr. and Mrs. M. J. Bartlett and family. Mrs. Brownfield is a sister of Dr. Bartlett. They will continue their tour to points in California and will be gone a month or six weeks.

Twenty-seven doctors and their wives from Morgantown were the guests of the Marion County Medical Society in September at a dinner in the assembly room of the Young Men's Christian Association. This was a return meeting. Some time ago local physicians and their wives were entertained by the members of the Monongalia County Medical Society. Thirty-two local doctors and their wives were present. The tables were embellished with garden flowers. Papers were read by Dr. V. H. King, Dr. S. S. Wade and Dr. T. Jud McBee. While the scientific part of the program

was being carried out, the ladies were entertained at the Doctors' Camp on Prickett Creek. Later they were joined by their husbands. LaMar C. Satterfield and Mrs. Forrest F. Fankhauser sang and there was further entertainment in dancing and music and readings.

OHIO COUNTY

HARRY M. HALL, Reporter

The Ohio County Medical Society opened up auspiciously last night with Dr. Henry J. John of the Cleveland Clinics as the drawing card, the subject of his address being "The Diabetic Problem." Discussion by Dr. J. T. Thornton and Dr. R. J. Snider.

Dr. Bippus, the new president, was in the chair. Dr. Marschner, the new vice-president, was on hand, and Dr. Bond changing from treasurer to his new office of secretary. No long-winded speeches were made. The new officers we suppose thought Dawes, Davis and LaFollette were doing enough of that. They knew they had an unusually good program, and let it go at that. So, without a single unnecessary word, they opened up the year's work. Many of you have heard Dr. John. He is your matter of fact talker who speaks from his own experience. What we enjoy about such men is their modesty. So greatly do we feel this way on the subject that when a man comes along who is blatant and one hundred percent successful, as he admits, then, whatever his so-called reputation, we feel a little doubt creeping in. There is no more trying subject than the "Diabetic Problem."

The average doctor feels toward the subject of diabetes and infant feeding like the average high school student does toward algebra and trigonometry—necessary evils, but the wise thing to do is to get in a position or job where you will never have to use them. We understand diabetic specialists and civil engineers are less than the demand calls for, and Dr. John dwelt on this when he gave his feeding table—100 grams carbohydrate, 80 grams proteid, 60 grams fat, as the one which fitted all cases—was not too liberal nor too stingy—was the one given in hospitals as well as the one which the patient went home on, and which almost did away with books and charts. He dwelt also on the bugaboo the chart is, and how it is well to drop it if you can. He said he knew how discouraging it was to the diabetic to feel month after month he would almost live by a series of figures, so he felt every place it could be done, they should be dispensed with.

We feel just as sorry too for the lecturer on Diabetes. They have to use so many charts themselves, and have to say "blood sugar" so often that they almost wear an audience out. Dr. John is able to do away with much of this rather uninteresting part so that his hearers for the most part are as fresh on adjournment as when the affair began.

There are at least two or three things that we shall mention which may be of interest to some at least. Two or three men may examine the urine in a case of diabetes in its incipiency. Two may find none, the third quite a little sugar. All were correct as to their findings. It was because the first two examined when the sugar was under the tolerance point of the kidney func-

tion. "So if you want to be correct, give your diabetic suspect a heavy breakfast of pancakes and syrup, with sugar and cream in the coffee. Then examine two or three hours later. It may save your reputation as well as the patient's future life."

You can have reactions from insulin in hyperglycemia as well as in hypoglycemia. Perhaps one third of his cases, in any event enough to make it a condition to be remembered. No clear explanation is at hand.

He had a young man under observation from 1922. Started in with high blood sugar, which was controlled by diet. Glucose test in 1923 showed he would react normally. This year he went to Europe and came back a typical diabetic after having to partake possibly of food not previously allowed. Even insulin will not cause a wholly favorable reaction now. This case illustrates the necessity of eternal vigilance. In one thousand urine tests it was well proved that you can easily have glycosemia with a specific gravity of 1005. Therefore specific gravity is of no value in itself.

Common colds are the chief danger in treating diabetic children. In acidosis he gives insulin in the glucose solution 10% to 15% intravenously, not separately.

Thornton, in discussion, asked, "Why you had such immediate good results with orange juice and sugar before he thought it could be absorbed (in insulin reactions)." Answer was, some of it is immediately absorbed and that it only takes a very little. Dr. John gives whiskey, water and sugar—(no one asked how this was done. We suppose only the lake separates Cleveland from Canada.)

Skin eruptions while giving insulin were not explained. Thornton asked about reactions with still a quantity of sugar. The explanation is not altogether clear yet. Dr. Thornton then dwelt on insulin in other diseases, particularly in children with marasmus resulting in immediate improvement in appetite. He also cleared up a stubborn case of vomiting in pregnancy with no return, using glucose and insulin injections (he gave his separately). We recall he gave three injections 15% glucose.

Dr. Snider, also discussing paper, asked concerning failure of insulin at times in presence of arteriosclerosis. Answer was, presence of sugar in blood produced an endarteritis in itself—more severe in some. Probably this would serve to destroy more islands in some cases. He felt where one case of equal severity unto another did not respond while the other did, it would usually be found a greater destruction of the islands would be found in the refractory one. Death in most cases of acidosis was due to a dilatation of a heart weakened by the presence over a time of sugar in the blood and resulting myocardial degeneration.

Bearing on all cities, but just now going on in New York City, where the X-Ray specialist, Dr. I. Seth Hirsch, is being investigated on charges of neglect to poor patients —a nurse, Miss Stieger, Mayor Hylan's former personal nurse, having a new job of city investigator at ten dollars per day, looks into hospital conditions.

Dr. George O'Hanlon, superintendent of Bellevue, denies the charge. David Hirschfield, commissioner of accounts, says he will

create a new department and instead of a physician, he will put a business man at the head of it. Here again looms up the stupidity of the medical profession. We begin to think of physicians in terms of children of ten years. We think we see hospitals slipping out of the control of physicians altogether. They will have to punch a time clock after a while, and behave in hospitals under the same rules as the elevator boy. It is just one more of the effects of a lack of co-operation.

Dr. J. R. Caldwell, who spent his vacation in the Grand Canyon, tells a good one on the railroads he heard while out there. A woman in Kansas City boarded the train for Canada—(no, you are wrong; doctors are not the only ones who go to Canada). She had thirteen children and only one full fare ticket for the fourteen passengers. The conductor was inclined to argue. She had thirteen birth certificates with her. In the argument for the defense she won out—three "triplets," "two twins," all under five. (Dr. C. H. Maxwell, please copy.)

Quite a good deal of regret has been expressed here to Miss Clo Howard, whose brother on the State University football team fractured his fibula in a recent game. She is one of the valued anaesthetists at the Ohio Valley General Hospital, and is generally credited as being one of the best "nitrous oxide" experts in the state. Miss Howard was at one time in the C. & O. Hospital at Huntington.

Dr. and Mrs. Chas. A. Wingerter, recent bride and groom, were honor guests at a post-nuptial dinner party given Wednesday evening by Miss Anne Wingerter at her home on Twelfth street, Wheeling, W. Va. The affair, though informal, was marked by beautiful originality and elegance of detail. The spacious Wingerter residence was transformed into a veritable bower of autumnal beauty and fragrance by a local florist. Following the dinner, marked by dainty appointments, and with covers laid for twelve members of the immediate family, the evening was spent most informally.

Dr. Andrew J. Swezey, 55 years old, prominent eye, ear, nose and throat specialist who has practiced in Huntington for about five years, died suddenly in the Kessler-Hatfield hospital October 15th.

Dr. Swezey underwent a serious operation several weeks ago, but apparently was on the road to recovery. He was up and walking about his home but suffered a severe relapse and was removed from his home on Dundale avenue, Westmoreland, to the hospital, where he lived but a few hours.

Death was attributed to cancer of the pancreas.

Funeral services were held Friday afternoon, October 17th, at the residence, at 2:30 o'clock. Rev. Fred W. Hagan, pastor of the First Congregational church, of which Dr. Swezey was a member, conducted the services. Members of the Cabell County Medical Society acted as pallbearers. Interment was made in Woodmere cemetery.

Andrew Jackson Swezey was born in Knoxville, Iowa, on December 30, 1869. His boyhood was spent on a ranch in Nebraska, following which he attended Dixon College at Dixon, Illinois, to prepare himself for a medical career.

He received his degree in medicine at the College of Medicine and Surgery at Keokuk, Iowa, now the Iowa State Medical College, located at Iowa City. His postgraduate work carried him to Chicago.

Later he went back to Dixon College to teach military science. He stayed there for three years and then went to Deborah, Iowa, where he practiced his profession for 20 years. On August 17, 1895, he married Miss Bertie Ranney, of New Lisbon, Illinois.

At the beginning of the world war in 1917, Dr. Swezey enlisted and was sent to Fort Riley, Kansas, as a captain in the medical corps. He was stationed at this training camp through the war, being honorably discharged in 1919.

Dr. Swezey came to Huntington about five years ago, first opening offices for himself, but later going with Dr. C. G. Willis. At the time of his death he was maintaining an office in the Robson-Prichard building here with Dr. Isadore Hirschman.

Dr. Swezey was an active member of the First Congregational church, being president of the Laymen's League of that church. He was also a member of the Elks Lodge and of the Cabell County Medical Society, being an ex-vice-president. He was one of the best known men in Huntington's medical fraternity.

He is survived by his widow, two children, Dr. Paul H. Swezey, of Massillon, Ohio, and Miss Ruth Swezey, formerly of Richmond, Indiana, but now of Huntington; and two brothers and two sisters, Dr. B. S. Swezey, of Buffalo, Minnesota; Charles Swezey, of Mandamin, Iowa; Mrs. Etta Woods, of Des Moines, Iowa, and Mrs. Bessie Maley of Los Angeles, California.

Dr. J. C. Kessler, Huntington, who has been undergoing treatment at the Crile Clinic, Cleveland, O., for some time, has returned to the city and will resume his practice.

Before coming home, the doctor accompanied by his daughter, Miss Thelma Kessler, visited friends and relatives in Cleveland, Toledo, and spent some time in Harper's View, a Lake Erie resort.

He says that he is now in excellent health and feels capable to resume his extensive practice.

Dr. and Mrs. J. Ross Hunter of Charleston motored to Huntington and attended the Hunington-Ceredo-Kenova football game at Marshall field. Dr. and Mrs. Hunter formerly resided in Huntington.

Formation of a tri-state medical society which will embrace eight counties in West Virginia, four in Ohio, and three in Kentucky, will be accomplished at an early date, according to Dr. T. W. Moore, president of the Cabell County Medical Society.

Dr. Moore was appointed a member of a committee composed of the presidents of the medical societies of Cabell county in West Virginia, Boyd county in Kentucky, and Scioto county in Ohio, which was assigned to formulate plans for the new society at the closing session of the annual meeting of the Ohio Ninth District Medical Society at Portsmouth.

Dr. James G. Murfin, of Portsmouth, head of the Homestead Academy of Medicine, is chairman

of this organization committee, while the third member is Dr. W. O. Eaton, of Ashland, Ky., president of the Boyd County Medical Society.

Dr. F. W. Marting, of Ironton, Ohio, conceived the idea of a tri-state medical organization and voiced his convictions regarding the importance and feasibility of the proposal in a motion urging the formation of such a society, which was unanimously carried with the vote of every physician attending the district conference. He proposed to draw the membership of the new society from Scioto, Lawrence, Gallia and Meigs counties in Ohio, from Lawrence, Boyd and Greenup counties in Kentucky, and from Kanawha, Cabell, Putnam, Mason, Wayne, Logan and Lincoln counties in West Virginia.

Eighteen Huntington physicians attended the Ninth District annual gathering in Portsmouth, which closed with the selection of Gallipolis as the 1925 meeting city, after it had been decided to launch the new medical society as soon as possible.

The Huntington doctors were: T. W. Moore, W. E. Neal, Walter E. Vest, Alex R. McKenzie, Oscar E. Biern, Fred E. Brammer, Benjamin L. Hume, F. C. Hodges, C. G. Willis, W. C. Swann, J. A. Guthrie, J. C. Matthews, Ray M. Bobbitt, R. Ruedemann, W. Byrd Hunter, Geo. M. Lyons and W. D. Hereford.

Dr. T. W. Moore, Huntington, attended the recent annual meeting of the American Oto-Laryngoly Society in Quebec.

Dr. R. J. Wilkinson, superintendent of the C. & O. Hospital, Huntington, attended the annual meeting of the Virginia Medical Society in Staunton, October 15-17.

Dr. G. R. Maxwell, son of Dr. C. H. Maxwell, has located in Morgantown and is associated with his father, but on October first he will take temporary charge of the Mt. Logan Sanatarium at Chillicothe, Ohio.

Ernest G. H. Meyer, a chiropractor, 438 Seventy-seventh street, Brooklyn, who was convicted of manslaughter in connection with the death of Caroline Germuth, 6 years old, at 450 Fifty-first street, Brooklyn, who died of diphtheria, was sentenced yesterday to not less than one year nor more than two years in Sing Sing Prison by Supreme Court Justice Hagarty in Brooklyn. It was charged that chiropractic treatment for the girl was responsible for her death because it had prevented the calling of a physician until her condition had passed beyond possible medical aid.

An event of unusual interest in West Virginia Masonry was the raising of twin brothers to the sublime degree of master Mason in Thomas, W. Va., Lodge No. 123. They are Henderson and Ireland Miller, sons of Dr. J. L. Miller, past master of Thomas Lodge, both students, Henderson attending Yale and Ireland the University of Pennsylvania. In order for both to receive the work together, special permit of absence had to be granted by both schools. It is said to have been the first raising of twins

on the same evening in the history of the State.

A banquet followed, with plates laid for 84.

Dr Homer B. Luttrell, formerly of Amissville, Va., after a year's internship at St. Francis Hospital, Jersey City, N. J., has located at Bramwell, W. Va. Dr. Luttrell is an alumnus of the Medical College of Virginia, of the class of '23.

DR. HADWEN IN DIFFICULTIES

Walter R. Hadwen, M.D., of Gloucester, in England, is a leader among those who object to scientific experimentation on animals, who believe that disease is not caused in any instance by germs, and who therefore oppose the use in the treatment of disease of such things as diphtheria antitoxin, insulin and other remedies, derived in a similar manner. Within the last few years, he toured the United States under the auspices of antivivisection, antivaccination and similar organizations. He now finds himself, as is pointed out in the London letter in this issue of The Journal in rather unusual difficulties, on account of the refusal of an English jury to recognize his peculiar theories of disease when they are put into actual practice and result in the death of a child. A mother of Gloucester called Dr. Hadwen, who unfortunately possesses the degrees of M. D., M.R.C.S. and L.R.C.P., to take care of her daughter, aged 10, who, according to the report of the inquest, had a sore throat, with a blood-tinged nasal discharge and offensive breath. Hadwen is said to have applied gargles of warm water and vinegar, made a cursory examination, and in later visits prescribed painting the throat with glycerin, as the child could not gargle. Later, the family, being dissatisfied with Dr. Hadwen's treatment, called in another physician, who diagnosed diphtheria and pneumonia, and stated that the condition was practically hopeless. The child died three hours later. In his examination by the coroner, Dr. Hadwen insisted that the germ theory was "all bosh." Fortunately, he could not convince the jury of his views. A verdict was returned that "the child died from diphtheria and pneumonia, and that Dr. Hadwen had failed to show competent skill and special attention, in consequence of which failure the child died." The coroner said that in law this was a verdict of manslaughter, and Dr. Hadwen will come up for trial in the near future. It is time that the pernicious activities of this deluded fanatic should have met with some legal or governmental control. It is unfortunate that it should have required the needless death of an innocent child before the government could take any activity to curb his influence on his equally ignorant followers. It is hoped that the trial for manslaughter will give opportunity for further education of the public, so that means will be no longer forthcoming for supporting Hadwen in his endeavors.—Jour. A. M. A., Oct. 4, 1924.

MEDICINE AND SURGERY

CALCIUM AND PARATHYROID IN TUBERCULOSIS

Pelouze and Rosenberger (American Journal of the Medical Sciences, October, 1924) report an interesting but inconclusive series

of experiments on guinea pigs using calcium lactate and parathyroid substance. Their work is based on two theories now generally considered as fairly well proven: (1) That in tuberculosis there is some derangement of calcium metabolism as a result of which this element is not properly taken up and utilized by the cells—the so-called lime-salt tissue starvation; and (2) that the parathyroids are the governors of calcium metabolism. The work is only suggestive but a clinical trial would not be dangerous and should be undertaken. It occurs to the reviewer that possibly this treatment might be found of value in undernourished conditions where increase in weight is a desideratum. We give their summary:

1. The theory upon which these experiments were based is that in the tuberculous and those predisposed to tuberculosis there is a hypoparathyroidism which curtails the final stages of calcium metabolism, as the result of which the calcium does not enter properly into true intracellular chemistry.

2. Tuberculous and non-tuberculous guinea-pigs were given calcium and parathyroid substance separately and combined and, while it is not felt that the thesis is in any sense proved, it is deemed that the results are of such a suggestive nature as to warrant this preliminary report.

3. The results so far can be briefly summarized as follows:

(a) The lesions were greater in the tuberculous control and less marked in the calcium-fed animals. In those given parathyroid and in those getting both substances the lesions were still less marked.

(b) The weight gains bore an inverse relation to the size of the lesions, as would be expected, and were much greater in those upon the combined medication.

(c) The tuberculous animals receiving both drugs ate far more than either of the others and even more than normal pigs under like conditions.

(d) It would seem that if one wishes to make a guinea-pig gain enormously while taking calcium and parathyroid he should inoculate him with tuberculosis.

(e) The results in all of these series are as consistent as one who has handled laboratory guinea-pigs very much would expect, and make it highly suggestive that similar results might be obtained in certain classes of patients with tuberculosis.

4. It is our hope that others will take up this work in human beings for in it somewhere, we feel, is the answer to a problem that has baffled us all and that tuberculin has never answered.—W. E. V.

THE MENSTRUATING UTERUS

Novak and Te Linde (Journal A. M. A., September 20, 1924), report an intensive study of the endometrium during menstruation. Their material was carefully chosen and as carefully prepared. To avoid injury to the endometrium, traction catgut sutures were used instead of forceps. Within three minutes after removal, the specimens were opened and placed in Zenker's fluid. This study practically re-

moves the actual mechanism of menstruation from the field of romance and conjecture to that of scientific fact. We quote their excellent summary:

"While there is little difference of opinion at present concerning the uterine changes in the postmenstrual, interval and premenstrual phases, there has been much discussion for the last fifty years concerning the behavior of the endometrium during actual menstruation. The chief point at issue has been as to whether or not all or a part of the uterine mucosa is cast off. The paucity of reliable investigations on this point has been due in large measure to the aversion of surgeons toward operating on menstruating women.

"Our material consisted of twelve uteri removed during some phase of actual menstruation, together with a number removed immediately before or just after menstruation. The study of this material which we believe has been studied by methods eliminating errors of technic, convinces us that extensive loss of tissue is the rule during menstruation, as Schroder has demonstrated. The entire superficial or compact layer, as well as most of the deeper or spongy layer, is thrown off. It is possible that there may be exceptions to this, but we have not observed them. On the first day, the surface of the mucosa may be quite intact, but more commonly it shows beginning loss of tissue. By the second day, the throwing off has become very extensive, all the compacta and most of the spongiosa being gone. Regeneration changes are usually evident on the third day, and may be quite marked.

The desquamation of mucosa is preceded by extensive infiltration with polymorphonuclear leucocytes and lymphocytes; this infiltration is marked for a short time before the actual clinical onset of menstruation. The throwing off of the mucosa does not usually occur as an extensive shedding in large masses. It is a sort of crumbling molecular process, small strips and bits of granular degenerated mucosa being cast off until only the basalis, and perhaps a few spongiosal remnants, are left. The desquamated endometrial portions may be recovered from the menstrual discharge. Pyknotic changes are prominent at the beginning of menstruation.

"Regeneration is remarkably rapid, especially the epithelization of the surface. The source of the new epithelium is chiefly the epithelium of the basal stumps of the uterine glands. Strange to say, mitosis is not a very frequent occurrence, appearing to a greater extent when the epithelial layer is already complete.

"While diapedesis may, perhaps, play some part in the mechanism of the menstrual bleeding, rhexis is certainly the most important factor. It can be demonstrated histologically, although its occurrence is self-evident, in view of the extensive tissue loss associated with menstruation."—W. E. V.

IODIN IN EXOPHTHALMIC GOITRE

The exact role that iodin plays in thyroid conditions is by no means well understood. The work of Plummer has stimulated the use of Lugol's solution as an adjunct to

subtotal thyroidectomy. Starr, Walcott, Segall and Means contribute an excellent article to the September Archives of Internal Medicine in which they report their observations on seventeen out-patients and twenty-five hospital cases in the Thyroid Clinic of the Massachusetts General Hospital. The essential effect they denominate the "iodin remission." Iodin was given as Lugol's solution (Liquor Iodi Compositus, U.S.P.) in dosage of gtt. V. well diluted with water t. i. d. p. c. The general effect is that of subtotal thyroidectomy except that there is no rise in the metabolic curve following initiation of the treatment corresponding to the critical post-operative peak commonly observed. The average rate of detoxication was 3.7 basal metabolic points daily, or exactly the same as the average rate of detoxication following removal of five-sixths of the gland. Unfortunately the iodin effect is only temporary. The authors advise that no interval be allowed between administration of iodine and operation as there is a rapid increase in the toxicosis following withdrawal of the drug. Plummer advises the continuation of the iodine after operation as a means of warding off the immediate postoperative thyroid crisis. The Boston writers have found the dosage given here as optimal, i. e., a smaller dose is not so effective and a larger not productive of better results. We quote their conclusions:

1. Iodin by mouth will produce abrupt remission in most cases of exophthalmic goiter.

2. The remission is often as rapid and as extensive as that following subtotal thyroidectomy.

3. It is believed that iodin is the causal agent of this remission.

4. Iodin alone as now used has not been shown to be sufficient to suppress the disease permanently.

5. After a patient with exophthalmic goiter has been taking iodin, a rapid rise of metabolic rate and increase of toxic symptoms will occur within one or two weeks if the iodin is stopped.

6. In some cases of exophthalmic goiter, (twenty percent of the hospital cases in this series), iodin has no observable effect.—W. E. V.

DANGERS OF TAXIS IN STRANGULATED HERNIA

Taxis is little used at the present time because of its dangers and the fact that there is a much lower mortality rate if operation is performed as soon as the diagnosis is made and without attempts at manual reduction. Contrary to the general opinion, if the hernia cannot be reduced in five minutes by moderate pressure, it is inadvisable to continue taxis longer. Taxis is aided in infants, children and adults by suspending them by their feet, head downward.

Taxis is contraindicated when the hernia has been down several hours; when the onset is acute and the symptoms severe; when previous attempts at taxis have failed; when the hernial coverings are edematous; when there are symptoms of prostration and shock, and when there are signs of ulceration and gangrene.

If taxis is apparently successful the patient is not out of danger for several days and should be watched carefully for symptoms of reduction

"en masse," hemorrhage, and delayed perforation of the intestine—Leigh F. Watson: International Clinics, 1924, vol. 2, s. 34, p. 217-219.

HERNIAL TUBERCULOSIS

The diagnosis of hernial tuberculosis is seldom made except at operation unless lesions exist elsewhere, such as in the abdominal viscera, peritoneum, genital organs, spine, bones, joints, lungs, or meninges. The outlook is ordinarily grave because the patient often dies from the primary lesion. In children a congenital tuberculous hydrocele is often mistaken for a simple hydrocele. If the tuberculous hernial contents are thoroughly exposed to the air, improvement generally follows and sometimes healing of the local condition. Peritoneal tuberculosis is nearly always present also and should be dealt with through a second incision. In addition to the operative treatment, the usual measures employed to combat tuberculosis are necessary.—Leigh F. Watson: International Clinics, 1923, vol. 1, s. 33, p. 230-235.

CERTAIN BLOOD DYSCRASIAS DEPENDENT ON PATHOLOGIC CONDITIONS OF THE SPLEEN

The clinical conditions discussed by William J. Mayo, Rochester, Minn. (Journal A. M. A., Sept. 13, 1924), are: splenic anemia, hemolytic icterus, which he says is a syndrome, polycythemia rubra and splenomyelogenous leukemia. In the ninety-eight cases in the Mayo Clinic in which the spleen was removed for splenic anemia, microorganisms were not secured on culture; yet the spleen, revealing interiorly the enormous development of a protective type of fibrous tissue, thrombophlebitis, and atrophy of the pulp cells, and exteriorly the adhesions that bind it to the surrounding organs, gave the impression that the disease is the result of infection by bacteria which are short-lived and have disappeared or, one might better say, have been destroyed. Experience leads Mayo to believe that when a pathologic process in the spleen is once set in motion, even if the cause of the hyperactivity is overcome, there is a tendency for the condition to become chronic, and its later progress is little influenced by any form of conservative treatment. The spleen has been removed in the Mayo Clinic in fifty-one cases of hemolytic icterus, with three deaths in the hospital, only one of which was directly connected with the operation. The results of splenectomy in this disease were little short of marvelous. The patient, perhaps jaundiced through life, becomes white in a few days, the anemia disappears quickly, and health is restored and maintained. Splenectomy was performed in the Mayo Clinic in sixty-one cases of pernicious anemia, with three deaths in the first nineteen cases, in which operation was performed during the terminal stages of the disease without due preparation. In the forty-two cases in which splenectomy has been performed since then, the patients have been prepared by blood transfusion, and there have been no deaths. Splenectomy should not be performed while patients are in crisis, that is, during the more active manifesta-

tions of the disease. All the patients who recovered from the operation were strikingly benefited at once; the benefit was much greater than had resulted from transfusion of blood or any other form of treatment. About 22 percent of the patients lived two and one-half times as long as those in a comparable group who were not splenectomized, and about 10 percent lived more than five years and were able to work. For myelogenous leukemia Mayo recommends radium applied to the spleen. which reduces not only its size temporarily, but also reduces the white cells to the vicinity of 30,000 before operation. Radium is of value in the treatment of splenomyelogenous leukemia, it does not cure, and finally loses its good effect by producing connective tissue changes in the outer layers of the spleen, which encapsulate and protect the interior pathologic tissue from the rays. In tracing patients splenectomized for splenomyelogenous leukemia, three who have been sufficiently free from the effects of the disease to carry on their work for a period of more than five years, were found, and eight who have worked for more than three years. Others have had periods of temporary improvement of from one to two years, but all still show evidences of the disease. In the light of clinical experience, Mayo says, the chronically enlarged spleen must be regarded as a menace to the well-being of its human carrier, and it rests with the physician to show why it should not be removed. Besides the 255 cases of splenectomy referred to here, the spleen has been removed in the Mayo Clinic in ninety-three cases of splenomegalies due to micro-organisms, tumors and other conditions.

THE SHEPPARD-TOWNER ACT

The publicity department for the Children's Bureau of the United States Department of Labor announces that $1,688,047.12 has been expended by federal and state governments in the carrying out of the Sheppard-Towner Act, or the so-called federal Maternity and Infancy Act, during the first fifteen months following its passage. The federal grants to the states have totaled $1,046,523.56, and the state appropriations $641,523.56. Forty-three states cooperated in 1922, and forty-one states in 1923. The number for 1924 includes forty. The states that do not cooperate are Kansas, Illinois, Louisiana, Vermont, Maine, Massachusetts, Connecticut and Rhode Island, but Louisiana is to come in during 1925. Since this bill was strongly opposed by the medical profession before it was passed by Congress and endorsed by President Harding, it is in order to inquire as to just what has been accomplished through the expenditure of this large amount of money. Perhaps it is well to quote exactly what the publicity department for the bureau has to say; the claim is made that this act has demonstrated its value since it has:

1. Stimulated state activities in maternal and infant hygiene.
2. Maintained the principle of local initiative and responsibility.
3. Improved the quality of the work being done for mothers and babies by disseminating through a central source—the federal government—the results of scientific re-

search and methods of work which have been found to operate successfully.

4. Increased state appropriations with the passage of the act. From the appropriation for the fiscal year 1922, fifteen states were able to accept only the $5,000 unmatched funds. Six states were able to accept only the $5,000 unmatched funds from the federal appropriation for the fiscal year 1923. All of the states cooperating under the act either have already accepted more than the $5,000 unmatched allotment from the 1924 federal appropriation, or will be able to do so. Moreover, since the Maternity and Infancy Act became effective, thirty-three states accepting it have made definite increases in their own appropriations for the welfare of mothers and babies.

Actually, the first three items just quoted mean nothing. They represent no scientific evaluation of results, but merely the general statement that more attention is being paid to the matter without evidence of paternalism. How is it demonstrated that this act, which is essentially paternalistic, has "maintained the principle of local initiative and responsibility"? The fourth claim made means even less from the standpoint of benefit, since one of the chief charges against this act was that it forced the states to appropriate money in order that they might receive an equal share of federal funds. It is strange, then, that the claim should be made that one of the benefits of the act has been that the states have been forced to appropriate money which, by the very nature of things, they could hardly avoid appropriating. If the proponents of the Sheppard-Towner Act would justify the bill, they must submit exact figures indicating that the maternal and infant death rates have been appreciably lowered in those states which have cooperated with the federal government, and that the rates are much lower than those obtaining before this meddlesome legislation became effective, and lower also than those of the states which have not cooperated, and which may serve in this case as a control. Furthermore, recognition should be made of the tendency toward lowering of maternal and infant mortality rates in accordance with the general lowering of all mortality rates following increased application of our knowledge of sanitation and hygiene.—Jour. A. M. A., Sept. 13, 1924.

CANCER OF THE UTERINE CERVIX, TREATED BY IRRADIATION

Harold Bailey and William P. Healy, New York (Journal A. M. A., Oct. 4, 1924), discuss methods of treatment and give the results obtained in 1,024 cases of cervical cancer treated with radium. In the 1,024 cases observed there were fifty-four in which the cancer was too extensive for full treatment of the lesion, and these cases received only partial irradiation, usually with the roentgen ray alone. Therefore, in only 970 cases was a definite effort made to cause complete regression of the lesion or to check its advance by the use of radium and the roentgen ray in heavy dosage. During 1915, 1916 and 1917, there were ninety-three cases of primary cervical cancer, early, borderline and advanced groups under treatment. Only four of these pa-

tients are alive today. In the second interval of three years, 266 patients with primary cancer of the cervix in various stages of development were treated, and forty-two, or 15.8 percent, of these are alive. In the primary advanced group, during this second three-year period, there were 202 patients, of whom twenty-five, or 12.3 percent, are alive, and all of the cases in this group were entirely hopeless from the standpoint of surgery when the patients applied for treatment, and presumably the patients had but a short time to live. The primary borderline group contained thirty-nine patients, and of these eight, or 20 percent, are alive. The primary early group contained twenty-five patients, of whom nine, or 36 percent, are alive. These results were obtained without any primary mortality from the treatment. In the last three-year interval, i. e., 1921, 1922 and 1923, there have been 335 patients with primary cervical cancer, of whom 169, or 50.4 percent, are alive. During 1922 and 1923 the authors have been using the roentgen ray, instead of radium for external irradiation. Of the recurrent cervical cancer cases in the first period, 1915, 1916 and 1917, before present technic was developed, fifty-three patients were treated, and only one of them is alive, whereas in the second three-year interval, after the adoption of the cross fire technic and the embedding of bare tubes containing unfiltered emanation at the site of the accessible recurrences, 115 patients were treated, and twenty-two, or 19.1 percent, are still alive. In the final three-year period, seventy-eight patients were under observation, and forty-two, or 54 percent, are alive. The authors feel that a study of these statistics emphasizes three points in regard to radiation therapy in carcinoma of the cervix: 1. Radium and the roentgen ray are of extreme value in cases of advanced cancer of the cervix in checking the progress of the disease and relieving distressing symptoms. 2. Patients with recurrent cancer of the cervix can be greatly benefited by ray therapy, if seen before the lesion is too extensive. 3. Prompt postoperative irradiation is imperative, and to neglect it would seem to be inexcusable.

THE TREATMENT OF FIBROMYOMAS OF UTERUS AND OTHER CAUSES OF MENORRHAGIA

The treatment of fibromyomas of uterus and other causes of menorrhagia by intensive roentgen-ray therapy is discussed by Louisa Martindale, London, England (Journal A. M. A., Oct. 4, 1924). In about 60 percent of cases of fibromyomas needing treatment, Martindale still does either a subtotal or panhysterectomy, or abdominal or vaginal myomectomy. In all operable cases of carcinomas of the body of the uterus and of the cervix uteri, she operates, using roentgen rays afterward. In operable cases, without cachexia, she uses deep roentgen-ray therapy. In deciding between the two lines of treatment, she is chiefly influenced by: 1. The physical signs and symptoms and actual diagnosis of the case. 2. The general condition of the patient. She uses a modification of the Erlangen technic. The chief characteristic of the new technic is precision of dosage. Martindale works with 5,200 interruptions in the gas

break, with an amperage of from 6 to 7 amperes, and a steady 2 milliamperes through a Coolidge or boiling water tube. Intensive roentgen-ray therapy was given in eighty-seven cases. In only four cases was there failure. It seems to Martindale that roentgen-ray treatment for these conditions, is a more or less ideal treatment to offer patients —a treatment eliminating nervous shock, the inconveniences of an anesthetic, long convalescence and big nursing home fees—and a treatment leaving the patient fit and able for her usual life, and feeling better in health than before.

MEDICAL ASPECTS OF ACUTE APPENDICITIS IN CHILDREN

John Howland, Baltimore (Journal A. M., Sept. 27, 1924), discusses the part that intestinal parasites, particularly Oxyuris, play in the causation of appendicitis. The worms are found not only in the lumen of the appendix but very often beneath the submucosa, having worked their sinous ways through the mucous membrane, sometimes into the lymph follicles. It may be impossible to demonstrate the point of entrance of the worm even by serial sections, but there are shallow hemorrhagic ulcers that are believed to be characteristic of the injury due to Oxyuris. Usually, the worms are found embedded in the submucosa, with little or no inflammatory reaction about them. The high incidence of the presence of worms within the tissues of appendixes that are the seat of catarrhal change seems in Howland's opinion to be the strongest evidence for regarding them as the cause of the attacks. While the symptoms in the catarrhal form are mild, there is one so pronounced as to form a rather distinct feature. That symptom is pain. The discomfort is constant, and may become exaggerated in paroxysms. This is in striking contrast to the low fever, slight leukocytosis, absence of prostration and the poorly marked tenderness, rigidity and distention. Howland reviews the symptoms by means of which a diagnosis is to be made. It is not always easy; indeed, it is at times nearly impossible with the infant. Though appendicitis may simulate meningitis, intussusception, bladder stone, pyelonephritis and innumerable other conditions, the true diagnosis can usually be made if the possibility is constantly kept in mind and careful examination practiced. There is justification for dreading this disease in the very young because the attacks are usually severe. Certainly, mild attacks comparable to those encountered in later life are distinctly uncommon. General peritonitis may supervene as early as the second or third day. But it would be a mistake to conclude that such was the rule. The literature shows, and Howland's experience bears it out, that many patients have lived as long as would an adult, and that the process has remained localized for days and sometimes even for weeks. He believes that Drachter is entirely right when he says that the problem of appendicitis in the young child is one of diagnosis, and that, if operation is performed before there is general peritonitis or pocketing of pus in numerous places, the mortality of appendicitis should be no greater but should be even less than it is with the adult.

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PRIMARY SYPHILIS: PRESENT-DAY METHODS OF DIAGNOSIS; RESUME OF ONE HUNDRED AND FIFTY-ONE CONSECUTIVE CASES.

By RUDOLPH RUEDEMANN, JR., M. D.
Huntington, W. Va.

Read Before the West Virginia Medical Association, Wheeling, May 1924.

The present-day problem of syphilis resolves itself into the question of the possibility of a cure through an early diagnosis and early adequate treatment. The work of Brown and Pearce[1] and Eberson[2] on the early dissemination of spirochaete pallida; the study of a number of latent syphilitics showing them to be active carriers[3]; the early invasion of the central nervous system[4,5] and the pathological contributions of Warthin are but a few of the monumental investigative steps emphasizing the necessity for an early diagnosis and efficient treatment in the hope of eradicating the infection before it has become thoroughly implanted in the host. The reports of reinfections, positive evidence of a cure having been attained, are proof of the efficacy of modern methods of diagnosis and treatment. The consistency with which patients presenting clinical and serological findings of a late syphilis, be it cutaneous, osseous, viceral or cerebrospinal, give a history of a delayed or incorrect diagnosis of the early lesion, followed by desultory treatment, warrants a radical change in such methods of handling these early cases.

The diagnosis of early syphilis is conceded to be a laboratory procedure. Diagnosis by inspection on the objective appearance of the lesion is too frequently a source of error. The typical Hunterian chancre presents itself in too few cases, and the tendency is to err towards the chancroidal side. This is indeed a serious error for the entire

future health and economic value of the individual and his progeny depend on the observation and treatment which he will receive in this three months period. With such high stakes it is advisable to play the game safe and not gamble. There seems to be an inclination on the part of both physician and patient to think of a "soft sore" first, that being the path of least resistance. The subjugation of the idea of social discrimination and age as factors is necesasry. Case reports show that syphilis has been acquired between the ages of twelve and seventy-nine, which gives a latitude of sixty-seven years. Many physicians are too prone to consider syphilis as a remote possibility instead of a disease which recognizes no creed, color or age, running rampant in the bluest blood, and the golden touch of a modern Midas cannot protect the favored son who strays from the path of sexual restraint to succumb to the wiles of Venus.

Every penile lesion should be viewed with marked suspicion for the spirochaete pallida has been found in all types of sores. It is not necessary to possess a furore to the point of being derogatory to clinical judgment. A patient recently seen illustrates this point fairly well. A traveling salesman in the course of his trip through the South noticed some papules about the penis which were markedly pruritic and he had scratched the top off. He reported to a physician who diagnosed it on inspection as syphilis. He was not satisfied with this and changed doctors. Several negative darkfields and a negative blood did not lessen his anxiety so in th next city he again consulted a physician who did not make a definite diagnosis but advised a few treatments so as to be sure. He went the rounds for six weeks in which time he saw seven doctors, receiving two series of darkfields, fourteen in all, each one necessitating the removal of an adherent crust to obtain serum, and six negative blood tests. He had been diagnosed syphilis twice on inspection and once had been advised to take treatment without a diagnosis having been made. Surprising as it may seem he had never been requested to strip off his clothing, which would have disclosed a marked scabetic eruption. The first diagnosis of syphilis on inspection was responsible for this patient's state of mind and no doubt his justifiable syphilophobia influenced by the physicians in directing their attention to that alone. It is always well to bear in mind that there are other possibilities such as scabies, herpes genitalis, lichen planus, malignancies, tuberculosis and other less frequent conditions which can be ruled out by the judicious selection of diagnostic methods.

The diagnosis of primary syphilis resolves itself into six methods as outlined by Sutton[6]:

(1) Darkfield examination on serum obtained from the lesion or regional lymph gland;

(2) Wasserman test, and the Kahn precipitation test on serum from the lesion;

(3) Staining methods, e. g., India ink; a

(4) Pathological examination of piece of tissue, biopsy;

(5) Culture of a piece of tissue;

(6) Animal inoculation.

The purpose of this paper is to discuss the two cardinal methods

of diagnosis, the darkfield and the Wasserman reactions, which are at the disposal of all physicians. The other methods are valuable but are too technical to be included in the armamentarium of the average practitioner.

The staining methods of which the modified Fontana seems to be the best[7,8] shows only approximately one-third of the organisms while the India ink method shows one-twelfth as compared to the darkfield. The drying and the staining distorts the spirochates and the characteristic form and movements so valuable in differentiating the various forms of spirilla from the spirochates are lost.

The removal of a piece of tissue for pathological examination is rarely necessary when rim puncture and gland puncture are resorted to. Where there is a question of some other condition such as malignancy or tuberculosis, it is highly essential to get a pathological section.

Animal inoculation is a time consuming procedure which has its place only in the high powered laboratory.

Culture methods are not always successful. Baselack and Keane[9] have elaborated a method with which good results have been reported. A good culture method is a valuable adjunct to the syphilographer and bacteriologist who has much of this work to do.

The blood Wasserman reaction has fallen into disrepute not through lack of diagnostic value but because it is too often considered the whole diagnostic ladder instead of a single rung. Too often it is taken too early in the course of the disease and the valueless negative sends the patient rejoicing on his good fortune which is only short lived. The blood test[10] is 25% positive in the first week, making its appearance about the fifth day of the chancre; 40% are positive in the second week, 60% in the third week, and about 80% in the fourth week. In the first two or three days of secondary rash, 5% of the tests will be negative while at the end of the first week 99% show positive tests. These figures demonstrate the necessity for coupling some other diagnostic means with the Wasserman test. It is well to remember that the chancroidal sore often precedes the syphilitic lesion and this time factor must be reckoned with when depending on the blood test.

The use of serum from the lesion for the making of a Wasserman test or Kahn precipitation test materially aids in hastening the diagnosis. It has been definitely shown[11,12,13] that the local serum will be positive before the blood reacts.

The darkfield microscopic examination of serum from the lesion or of serum from the deeper portions of the indurated rim or regional lymph gland is a relatively simple procedure. Like all diagnostic methods its value increases with the experience and proficiency of the examiner. It cannot be denied that the application of washes, powders, ointments and caustics too often proves a source of delay. The lesion is first cleansed of all tropical applications, discharge and crusts. The surface is rubbed with a piece of gauze and a little pressure on the border of the lesion with the fingers will elicit a deep serum ooze. This is taken up by means

of a capillary pippette and expelled on a slide for examination. It is advisable to avoid traumatizing the lesion, for too much blood spoils the field. Intraurethral lesions can be cleansed by means of cotton on an applicator. Enough serum can be obtained with a capillary pipette or platinum loop. This same method applies to lesions inside a phimosed foreskin. In cases where there is a marked secondary infection, or where topical applications have taken place, it is necessary oftimes to apply normal saline dressings for six to forty-eight hours.

The removal of surface antiseptics will frequently change a definite negative to a positive. Mouth lesions offer more difficulties due to inaccessibility and the number of organisms ordinarily present.

The observation or investigative period can be shortened especially in those cases where the lesion has been tampered with, inaccessible intraurethral lesions, or where there is a phimotic foreskin, by doing a rim puncture, or a gland puncture, as elaborated by Oelz[14] and Schultz[15]. Often it will be necessary to puncture both sides where there is a bilateral adenopathy for one field will show the spirochaete pallida and the other will be negative. It is well to avoid the acutely inflamed gland. Stokes and MacFarland[16] demonstrated the value of this method and their findings coincide with those in the series to be presented.

The fallacy of taking one negative examination to be sufficient has time and again been proved in this series. It is also advisable to take three or more slides at one examination. It frequently occurs that we find two slides negative and the third positive. Multiple lesions present possibilities for overlooking the most suspicious lesion and digital palpation will demonstrate an overlooked induration along the border. There must be a careful objective study of the different lesions.

A careful study of one hundred and fifty-one cases of penile and extragenital lesions seen in private practice and at the city clinic demonstrates all the points brought forth. Darkfield examination was done on one hundred and sixteen of these patients. The remaining thirty-five presented complications such as marked chancroidal infection, phimosis, edema, cauterization, dorsal slit or circumcision with resulting widespread ulceration. They all gave a history of a long standing infection. Blood test was done on first examination and checked up by two laboratories. Wet dressings were applied to reduce infection and inflammation. Twenty-six patients gave a four-plus reaction, two transferred to other clinics, and two drifted away. There are four remaining negative and one returned in a month with secondaries.

The investigation of the one hundred sixteen gave the following results: Darkfield examination was positive for the spirochate pallida in sixty-four cases, or 55%, and negative in fifty-two cases, or 45%. Of the fifty-two cases with negative darkfields, twelve were found to have a positive Wasserman reaction which gives seventy-six, or 64.5%, positive, and forty, or 35.5%, negative.

The forty negative patients were followed up closely as circum-

stances permitted. Where the darkfield is a relatively recent innovation, it is rather difficult for average patients to understand why a doctor who has seen many penile lesions does not possess enough acuity of vision to make a snapshot diagnosis and they are subject to considerable extraneous advice often leading them to someone who saves them this period of expense and suspense. Seven of these patients later on developed positive clinical and serological findings. This gives 7% of the total or 17% of the negative group who later on developed syphilis. The darkfield examination diagnosed sixty-four out of eighty-three cases which gives 78%. The Wasserman reaction and darkfield combined diagnosed seventy-six cases out of eighty-three, or 91%. In the entire one hundred and fifty-one cases there were one hundred and eight with syphilis, or 71%. These figures are subject to a slight revision for there were seven patients on whom the investigative peroid was not carried out as long as desired.

Gland puncture was done on twelve patients with the spirochaete pallida found in five. Rim puncture was done on six patients and three were positive.

There were four extragenital lesions in which the specific organism was found. One was on the upper lip, three on the tongue. The patients on whom a diagnosis of Vincent's angina was made are not included. One young man had a primary lesion in the dorsum of the posterior third of the penis following exposure in which a condom had been used. Two patients presented extragenital chancroidal lesions secondary to penile infection, one was on the buttock and the other was on the little finger.

The clinical appearance of the lesion is generally agreed to be a most misleading factor in the making of a correct diagnosis. In an army hospital[17] only 46% of all lesions were diagnosed as being due to the Ducrey bacillus, while the average line officer diagnosed 75% as such on inspection. This gives a 26% margin of error. One cannot help but feel as does Hazen[18] when he says: "The man who attempts to diagnose a veneral sore without the aid of a darkfield illuminator is not only practicing medicine badly but is morally guilty of malpractice." The truth of this is borne out in studying the clinical characteristics of the lesions. There were only thirty-two patients who presented lesions which could be classified as typical chancres. Out of sixty-two solitary sores fifteen were negative for syphilis, and of the fifty-six patients presenting multiple lesions, thirty-four were positive for syphilis. Only 27.5% of the sores were typical chancres so diagnosis per se on the textbook description is bound to lead one astray.

The location of the lesions was variable but the majority were in the coronal sulcus and prepuptial mucous membrane on the male and the labia on the female. There were five intraurethral lesions and four were found positive on darkfield examination while the fifth patient had cauterized his lesion with phenol. He returned in six weeks with secondaries giving a history of having been ill with influenza. One cannot help but view all intraurethral lesions with marked suspicion after such findings.

Three male patients could be diagnosed as having a chancroidal infection on the clinical appearance of the sores and the source of infection. They were all infected by one prostitute, one patient being her husband. She was under active anti-syphilitic treatment in another clinic at the time.

Fifty-two of the patients on whom a darkfield examination was made had had some form of local treatment. Ten of the males had some form of surgery, three having had a circumcision and seven a dorsal slit. The marked ulceration following such procedure condemns it as being exceedingly bad practice.

Two of the patients gave a history of having had a positive darkfield examination prior to reporting for this investigation. They were both found negative for syphilis after a thorough investigation.

Eight of the patients gave a history of having had syphilis from one to six years. All had been diagnosed by inspection and had had from one to five treatments. Four of these patients were positive on darkfield examination and the other four were never proven to have syphilis.

The source of infection was traceable in over 50% of the cases. It should be the duty of every physician who sees a patient with early syphilis to ferret out the infecting partner. It is a duty to the community and it is found that the infector is in the majority of instances not aware of having the disease. As near as could be estimated, fifty-three were infected by prostitutes, twenty-five by chance acquaintances or "pickups," and twenty-two by friends. There were seven who gave a history of frequent promiscuous exposure and eight prostitutes infected in gaining their livelihood. There were only five infections traceable to the marital partner although twenty-two were infected extramaritally. The twenty-two infected by friends warrants the statement that the source of infection should not allay the suspicion of the examining physician. Any individual who exposes himself, no matter with whom it may be, is open to infection.

The date of exposure offered nothing definite for it varied from one day to six weeks. One boy maintainde that he had been under treatment for a gonorrheal infection for five months, absolutely denying exposure in that period. The time in which the lesion makes its appearance does not give any indication as to what the infection may be. It must be borne in mind that the chancre and chancroidal lesion are so often found together that to take the time factor into consideration means the overlooking of an important point. Two of the male patients had gonorrhea and what appeared to be a Ducrey infection. The chancroidal lesions cleared up and while still under treatment for the urethritis new lesions developed on which a positive darkfield was obtained. Exposure in the interim was denied. Another patient nad been under treatment for gonorrhea for three weeks. He came in one afternoon with the story that four hours previous he had a sensation of burning about the glans penis followed by a "breaking out." Examination revealed twenty papulo-eroded lesions in the sulcus coronarius, on the reflected mucous membrane and glans. The microscopic darkfield showed those ex-

amined to be teeming with the spirochaete of syphilis.

The age of the patients varied from sixteen to fifty-seven years with 75% under twenty-five years of age. The average age of the patient seen at the free clinic was nineteen years while those seen in private practice averaged twenty-seven years.

The patients who developed syphilis later on all impress the necessity for thorough observation. One young man after three negative darkfields and one negative blood test waited until the lesion involuted and reported to his surgeon. He denied any penile sore and routine Wasserman was negative. He underwent a bilateral inquinal herniotomy without complications. Three weeks after he was out of the hospital he developed a secondary eruption with a four plus blood. A young woman from a neighboring town whose husband came in with a primary lesion reported for examination. She had been exposed three days before the husband was aware of any sore whatsoever. Examination showed superficial erosions about the introitus which had recurred frequently since the birth of the last child, resulting in a cervical and perineal laceration with accompanying leucorrhea. No spirochaeta pallida were found. These erosions cleared up and observation was advised. This patient was seen eight weeks later under quarantine for chickenpox. She presented a papular secondary syphilis, mucous patches and an acneiform eruption over shoulders and chest, no doubt due to an exacerbation of a mild acne following large doses of iodides for over a period of one month. Her blood was four plus. All those who developed syphilis following a negative examination were examples of neglect in the following up of the prescribed observation period. If all the patients could be held under perfect control during this period the percentage of positive diagnoses would be much better than 91%.

Conclusions

(1) The darkfield examination on lesions suspected to be syphilis will make a 78% correct diagnosis and in combination with the serological tests will increase this to 91%. From 70% to 80% of all penile lesions are syphilitic.

(2) The education of the public to realize that every suspicious mouth lesion and penile lesion should be diagnosed before treated; and than an observation period of at least three months is necessary before syphilis can be definitely ruled out, will increase the percentage of correct diagnoses made to at least 95%.

(3) Any combination of tests which can make a correct diagnosis in 91% of the cases is a combination par excellence.

(4) The incubation period, source of infection, number of lesions and clinical appearance are all factors tending to confuse, and where there are so many exceptions to the rule, as is found in these lesions when one endeavors to apply the textbook descriptions, it is better to forget the rule and substitute more modern methods.

(5) We must all agree with Stokes and MacFarland when they conclude: "The diagnosis of early syphilis has become a laboratory problem divided between the darkfield examination and the Wasser-

man reaction. Clinical criteria, while interesting, have lost most of their final diagnostic value. The primary stage especially should no longer be over-emphasized in teaching."

* * *

Discussion

Dr. Howard T. Phillips, Wheeling: I shall not attempt to discuss the paper at all from the standpoint of the technique of making dark-fields. Dr. Ruedemann has covered the field very well, and is on the right track. There is no doubt about it that the cleaning up of the present generation from syphilis is in the hands of the present-day practitioners of medicine, the men who are seeing cases of syphilis now. Whether we take a dark field, whether we are able to detect syphilis before the blood becomes positive, will determine how many cases of syphilis we shall have in the years to come. No man can palpate or say by any other means than the dark field whether a penile sore is syphilis or not. A chancroid infection — so-called soft chancre—resembles typical hard chancre. I grant you there are many cases in which the so-called soft chancres will yield a positive dark field, as mentioned, and yet remain soft to the touch. Any man who tries to make the diagnosis clinically and starts the patient on anti-syphilitic treatment, at great expense and, more than that, with a certain stigma attached, is guilty of malpractice. There are laboratories scattered all over the country where a man can be referred for dark field examination only. That does not mean that the doctor at the laboratory will treat the patient, for he will turn him back to the one who sent him in. On us rests the future of the country so far as syphilis is concerned, because someone sees that man when he has the initial lesion. By the time the blood test is positive, damage has been done which makes it very doubtful if syphilis can ever be cured, but in the stage before the blood test is positive, syphilis can be cured. Under competent treatment the patient goes ahead, has a negative Wasserman for two or three years, has negative spinal fluid, and can actually then acquire syphilis again, which is probably the best test we have that the first attack was cured. The old timers tried to figure out whether sores were venereal or not. One point I want to drive home is that these cases must have a dark field examination if we expect to give them the best that medical science can give them today.

Another point—a man comes in and asks you how much you will charge him for a shot of salvarsan. The time was when you charged twenty-five or fifty dollars, and it was worth it, because you had to cut down on the vein and it was a major operation. Now you have it all put up in a syringe and it is easy to give. The point is, if a man comes in for treatment and has a hundred dollars to spend, is it not better to give him ten salvarsans for the hundred dollars than to give him four and have him come in years later with neural syphilis?

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SYPHILIS IN ITS SURGICAL ASPECTS

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Syphilis is most commonly looked upon as a purely medical disease, and the average surgeon feels that when he has obtained a "negative Wassermann" from a patient whom he intends to subject to an operation, he has done his whole duty in regard to the possibility of luetic infection. But we should not forget that the Wassermann reaction—valuable as it is in the diagnosis of syphilis—is yet far from infallible, and while a "positive Wassermann" can usually be taken as a pretty sure proof of luetic infection, a "negative" may be a highly misleading guide, and should never be allowed to influence the diagnosis when there are clinical data pointing significantly in an exactly opposite direction.

Despite all that has been said and written, and notwithstanding the enormous progress made in the detection and treatment of syphilis during the past decade, it still remains true that the disease is far more prevalent than is ordinarily supposed, and that its manifestations and remote results are all too frequently overlooked, or impossible of recognition by the average clinician.

To the surgeon then, as to every other laborer in the field of medicine, an extensive knowledge of this disease in all its phases and ability to recognize it, no matter under what strange guise it may be masquerading, becomes a vital necessity, and in just the proportion that the extent of our knowledge of the different phases of the disease increases, will we find that its constant correlation with all other branches of medical practice will become more difficult. It is a hard road, no matter how you travel it, and continually leads you back to the oft-quoted dictum of Sir William Osler: "Know syphilis in all its manifestations, and all things clinical will be added unto you."

Surgical syphilis is concerned with those lesions due to syphilis which demand surgical treatment, either conservative or operative, but where in addition to the exercise of the surgeon's skill, specific medication must also be carried out.

Less directly we may be allowed to include in this classification those syphilitic lesions which so closely simulate others for which surgery is the recognized treatment, that they often come into the surgeon's hands through perfectly comprehensible mistakes in diagnosis. Besides these we should also consider those patients who must undergo surgical treatment for pathologic conditions entirely distinct from syphilis, in the known presence of exact and detailed differential diagnosis looms very large. In this, one of our most valuable aids is radiography, especially of the bones and joints. That the bones are frequently the seat of syphilitic lesions has been common knowledge almost as long as the disease has been recognized, but it is only in very recent years that we have come to realize how much radiography can reveal in patients who have previously displayed no evidences of infection. Often the characteristic radiographic appearance of specific inflammatory processes has been revealed in patients who have never had any symptoms—a silent skeletal syphilis[1]. It has been found, moreover, that in individuals without any specific history these characteristic changes were often present. Thus, certain patients who for years have suffered from obscure chronic conditions of which no definite diagnosis could be made, when finally examined by X-ray showed definite specific changes in certain bones "which gave the key to an otherwise blind and baffling condition." The value of skeletal radiography is but just beginning to be recognized, but to the surgeon especially, it should prove particularly useful, and may very often serve to reveal a hidden or forgotten syphlitic infection when the Wassermann test alone had provided no indication of its existence.

Radiology may often prove helpful in clearing up the diagnosis of certain conditions which are brought to the surgeon for operation, but are actually in need only of specific treatment. Many times deep-seated mediastinitis has been mistaken for malignancy. The diagnosis of mediastinal lesions is difficult at best, and until the comparatively recent introduction of the negative-pressure chamber operation in this region was very reluctantly undertaken. Now, however, the surgeon is better equipped to intervene successfully, and the exclusion of syphilitic mediastinitis becomes of still greater importance than in the past. Griffin[2], reporting five cases of mediastinal syphilis from the Mayo Clinic, says that though few reports concerning this condition have appeared in medical literature — the total number being less than twenty—he is nevertheless convinced that its incidence is much higher than is generally supposed, and many patients undoubtedly are allowed to die of gummatous infiltration of the trachea, or abdominal lues, because the nature of the affection has remained unrecognized.

Gastric syphilis has frequently been mistaken for cancer of the stomach, the differential diagnosis being far from easy, even for the most experienced. As Niles[4] has pointed out, two quite important considerations are the age and general appearance of the patient. Gastric carcinoma is seldom encountered under the age of forty or even fifty-five, which makes it seem

probable that some of the cases of cancer reported in young persons, where inoperable neoplasms were found in the abdomen, were really syphilis. "Then too, these sufferers, though the gummatous growths invading the stomach have greatly curtailed its motor and digestive capacity, thereby causing weakness and emaciation, do not generally 'look the part' of cancer. The cachexia may be, and often is, entirely absent."

Radiography may be of considerable help in enabling the clinician to make a correct decision. Niles found that in the presence of malignancy, except in the cirrhotic or "leather bottle" stomach of those of advanced yaers, the roentgenogram delineates a distorted organ with edges either serrated or, where it is not filled out, exhibiting a ragged "moth-eaten" appearance. In gummatous infiltration the stomach shadow appears to be almost blotted out, or blurred by more rounded masses. He has never seen a true syphilitic stomach showing either serrated edges in the shadow, or the appearance of either moth-eaten fabric or worm-eaten wood, as have been noted in true cancer cases. According to Sinclair Tousey[5], the radiographic appearance of the syphilitic stomach is more apt to be that of simple pyloric obstruction with sac-like dilatation and atony of the stomach, and while there are some cases of cancer that present this sac-like appearance, they are rare and usually at a terminal stage with an unmistakable general cachexia. Radiograms of cancer commonly show a clearly-defined contour of the stomach, closely embracing the gastric contents whether immediately after the barium meal or six hours later, while characteristic filling defects are often seen.

It is the opinion of Downes[6] that the diagnosis of syphilis of the stomach can be made without much difficulty if one gives due and thoughtful consideration of the clinical and laboratory findings. When the question lies between a gastric or duodenal ulcer, or a luetic condition simulating such a lesion, it will usually be found more difficult to recognize acquired syphilis than the congenital form, but in both types the course of the disease will be found to vary from that of a simple gastric or duodenal ulcer. If the Wassermann reaction remains persistently positive and there are roentgenographic findings of continued and unusual deformity of the stomach, the diagnosis should not long remain in doubt, though before asking any final declaration the effects of antisyphilitic treatment over a period of several weeks should be taken into account.

The gastric lesions of syphilis vary from a diffuse syphilitic gastritis with round-cell infiltration spreading through the submucous tissues, to localized or general gummatous infiltration involving all the coats. The gummatous deposits may be single or multiple and not infrequently ulcerate. One portion of the stomach wall may remain infiltrated while another passes on to ulceration, or in the healing stage becomes cicatricial. The irritation of the peritoneal coat results in perigastric adhesions of varying extent. Definite pyloric obstruction may occur as a result of the gummatous infiltration, cicatrization of the ulcer, or from the perigastric adhe-

sions. The relief of these conditions requires the intervention of the surgeon, and he is very apt to find that in addition to the lesions of the stomach wall, there will be syphilitic changes in the liver capsule, or gummata or that organ itself, and very likely extensive involvement of the gastro-hepatic and gastro-colic lypmh glands, in addition to other evidences of generalized syphilis.

Once the diagnosis of gastric syphilis has been established, vigorous antileutic treatment should be applied. If the patient comes under observation before the lesion has reached the cicatrical stage so as to induce pyloric obstruction or "hour-glass contraction" of the body of the stomach, the effect of such treatment will be almost magical. But should the gummatous infiltration or the obstruction due to scar formation reach the stage of producing marked symptoms, there will be no course open other than surgical intervention. If the stomach wall is in a condition to permit it, gastroenterostomy is the best procedure to employ, but if this is out of the question, jejunostomy may be carried out instead, to be later followed by whatever secondary operation is in the best judgment of the surgeon, most likely to restore best the gastric function. At times the effect of coincident antileutic treatment is so beneficial that a secondary operation may not be necessary.

In general, it may be said that all the gastric lesions produced by syphilis are of serious surgical importance, for they are potentially dangerous, and should be subjected to excision and resection in every suitable case. Such intervention should never be undertaken, however, until anti-syphilitic treatment has been given an extended trial.

Syphilis is probably responsible for many "masses" in the neck which are diagnosed and operated upon under various other designations, tuberculosis, Hodgkins' disease, and so on. A few years ago Cohn[7] of New Orleans undertook an elaborate study of this particular pathologic indication, in the course of which he stated that his observations were "not intended to enter a denial of well-established facts regarding the greater frequency of tuberculosis of the cervical glands, but rather to emphasize the frequency of syphilis as a cause of hyperplastic lymph gland masses in the neck." This author's clinical material was composed largely of negroes, and as this race is generally supposed to be peculiarly subject to both tuberculosis and syphilis, the differential diagnosis here offers especial interest, as well as especial confusion.

While lymph gland enlargements due to syphilis may be found in any of the triangles of the neck, by this author they were most frequently noted under the sternomastoid and above the omohyoid. The size varies from slight enlargement to masses extending from the tip of the mastoid almost to the clavicle. In but few cases was there any complaint of pain, but contrary to the prevailing opinion, he frequently found periadenitis, which matted the glands together to such an extent that on palpation, the mass felt like a single tumor. In the majority of cases there were no neighboring lesions, such as chancre of the lip, tongue or tonsils, mucous patches, or gumma of the buccal

cavity, which might have served to suggest the correct diagnosis.

The clinical laboratory helps to eliminate tuberculosis and Hodgkins' disease by returning a positive report on the Wassermann reaction, and a blood picture which rules out any possibility of these infections; and malignant disease can usually be excluded by the absence of a primary focus elsewhere, the age of the patient, the relative absence of pain, as well as the good condition of the patient's general health. The masses which are syphilitic in origin need no surgical intervention, and "melt away" with surprising rapidity under proper antisyphilitic medication.

When syphilis attacks the testicle it is very frequently confused with tuberculosis or even malignancy. Gumma of the testicle—if we may accept the statement of Symmers—is extremely rare. In 314 fatal cases of acquired syphilis which this author saw in his service at Bellevue Hospital, New York, he did not encounter a single gumma of the testicle proper. He emphasizes this especially, inasmuch as it is in direct contradiction to the usual textbook teaching. It is then, perhaps not a matter to occasion surprise, that when these lesions do occur they should often be wrongly diagnosed and treated. Of three cases of testicular syphilis reported by Zigler[9], two were gummata, and the third was a syphilitic interstitial epididymo-orchitis accompanied by hydrocele. The first two cases underwent operation for testicular tuberculosis, the first, a boy of twenty, being "completely unsexed," and the second deprived of one testicle and suffering some damage to the remaining one. Both of these patients denied leutic infection, but the third, coming earlier under observation, and presenting a history of syphilis, had surgical treatment only for the accompanying hydrocele, and was relieved of all symptoms by vigorous antisyphilitic medication.

According to Coues[10], "outside of a Neisser infection, gumma is the common ordinary cause of enlargement" of the testicle, and when a patient suffering from this condition presents himself, it should be a matter of regular routine to rule it out "by tests, history, and, if necessary, therapeutic test, before operation is done."

Not only the direct lesions of syphilis, but its more remote and secondary effects, may be of great interest—and not infrequently of exceeding great inconvenience to the surgeon. To those engaged in industrial or accident insurance work, the effect which previously existent syphilis may have upon accidental traumatic lesions, often influences his entire attitude toward a given case. Syphilitic osteitis often underlies varicose veins and leg ulcers which so frequently appear in those whose occupations require much standing, and it must very often happen that syphilitic leg ulcers are diagnosed as varicose, because the patient already has varicose veins. Delayed healing in apparently trivial injuries, and cases of non-union of fractures may frequently be due to an underlying syphilis, often unrecognized and wholly untreated. Coues points out that bone disease, apart from the ordinary osteoperiostitis, may cause a rare fraction of thinning of the bone, making the individual more liable to fracture. Repeated

fractures, especially upon relatively slight trauma, should always suggest syphilis to the surgeon's mind. Even where the routine Wassermann test remains negative a careful radiographic examination will often show evidence of an old syphilis, and such examinations should never be omitted where the condition is in doubt.

In so short a time it is impossible to more than touch upon some of the more obvious problems which syphilis brings to the attention of the surgeon, and I think you will all agree that what I said at the beginning is only more forcibly emphasized by what I have said since. In "all things clinical" there is a good chance that syphilis may "pop out" where we least expect to find it, and in every doubtful or obscure condition, no matter what the physical or financial state of the patient, no matter how blameless his life or innocent his heart, it is always well to be certain to rule out syphilis beyond any shadow of doubt before we proceed to active measures for the relief of any condition which it may possibly simulate.

* * *

Discussion

Dr. J. Howard Anderson, Marytown: In my opinion, to medical men this is surely a refreshing paper, and I think we should congratulate Dr. Rutherford upon the way he has handled the subject. Usually the surgeon comes to the medical man and urges him to hustle the patient along to operation, but here we have a surgeon coming to medical men and saying, "Go slowly; be sure."

This subject of surgical syphilis is of great importance. I doubt whether I can add anything to what Dr. Rutherford has said, yet I might cite a few cases. A man came to my office one time with a sore tongue, and I thought it was carcinoma of the tongue. I did not think of syphilis at first. We so frequently make mistakes. I was for hustling this man off to a surgeon right at once. We find, however, there are a few distinct differences between the syphilitic tongue—glossitis—and carcinomatous tongue. First, the syphilitic tongue has a brown, reddish appearance, while the carcinomatous tongue is bright red. Often in a syphilitic tongue there is a soft center in the mass, while in carcinomatous tongue we find the mass universally hard. Often in the syphilitic tongue there is a purulent discharge, while in the carcinomatous tongue, if anything, we find a bloody discharge. In the syphilitic tongue there is often early lymphatic involvement, while in the carcinomatous tongue we find lymphatic involvement coming later.

Speaking about the leg ulcer, I remember distinctly a case in which I had a very nasty leg ulcer in a woman who was pregnant. She had varicose veins, and naturally I referred the cause of the trouble to the varicose veins and to the fact that she was pregnant and the back pressure on the leg vessels. Absolutely I had not thought of syphilis. Later I delivered this woman and she had a little, wizened-up old man with a cold in its head, a typical syphilitic child which died within twenty-four hours. Then, going into the history, while the woman could give me no history of syphilis, I found, upon pinning the husband

down, that he at one time had had the trouble. I had been treaing this leg ulcer for weeks. Beginning on anti-syphilitic treatment, it cleared up at once.

Dr. Rutherford urged upon us the necessity of using the X-ray in affections of the bones. Speaking of syphilis in the bones, I had a mine foreman who suffered a great deal of pain in his heel. He remembered no injury, and the only thing to which he could attribute it was in going through the mines and finding the switch light open he would kick it with his foot to close it. He had consulted other physicians, and one physician who had an X-ray told him it was tuberculosis and had given him a series of treatments for tuberculosis. There was no inflammation, apparently, no redness, no tenderness, but pain. It puzzled me for a long while. Finally this man began to have mental symptoms. I immediately thought of syphilis, and sent him to a man who had considerable experience in treating mental diseases, and he took a Wassermann test. The Wassermann on the blood was negative, and he then made a spinal puncture and found the fluid positive. The man was put on anti-sypilitic treatment, and not only his mental condition but his bone condition improved. Dr. Rutherford brought out the condition of the bones and the changes in the bones which may be caused by syphilis. If I had been a skillful X-ray man I might have saved that man weeks of suffering, and might have gotten his case under control before he developed the mental symptoms.

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SYPHILIS IN ITS RELATION TO BONE AND JOINT PATHOLOGY

By E. BENNETTE HENSON, M. D.
Charleston, W. Va.

Read Before Post-Graduate Venereal School, Charleston, Aug. 9, 1924.

The literature relating to syphilis is of enormous volume and has accumulated through the centuries until now a medical or surgical journal can hardly be found which does not contain a reference to syphilis. One marvels, however, at the brevity with which bone and joint syphilis is treated by the modern writer. The fact was impressed upon me when I began to seek the opinions of the leaders in bone and joint surgery in regard to certain questions I had formulated for myself.

My observations during the past few years have led me to four definite conclusions in regard to bone and joint lesions with reference to syphilis.

The first to be considered is the value of a negative Wassermann reaction as an aid to the diagnosis of syphilis of the bone or joint.

The Wassermann test is one of the greatest aids to the scientific study of disease when properly done in the laboratory and its limitions thoroughly understood by the

physician. When strongly positive it means, almost to a certainty, syphilis, but when any other percentage is shown the physician must use rare skill in the interpretation of that reaction. Many times my attention has been called to a three-plus or two-plus Wassermann, with no history or other evidence of syphilis, only to have a negative report returned in two or three weeks when some foci infection had been eliminated. Many things other than syphilis must be taken into consideration when the Wassermann report is other than four-plus.

The negative Wassermann is equally as difficult of understanding. Too many physicians lay too much stress upon a negative Wassermann reaction. Personally, I expect a negative report in a lesion, more or less chronic in nature, of bone or joint and am seldom disappointed. Fully fifty percent of the reactions are negative ones. Warthin found spirochetes at autopsy in cases with acquired syphilis which had been under treatment sufficiently effective to yield a negative Wassermann reaction. He does not believe negative Wassermanns can be taken as indicating the absence of syphilitic infection especially in a congenital form. Blaschko agrees with this view, and says that in congenital syphilis only about 50 percent give a positive reaction. Debuys and Loeber have reported 106 consecutive negative Wassermann reactions of clinically syphilitic children.

To discredit the Wassermann is not my intent. On the contrary, I wish to emphasize its importance, but at the same time call attention to its limitation in bone and joint surgery, so that the therapeutic test will be used more extensively. In my work, routine Wassermann is made use of in all bone and joint injuries and in all joint and bone lesions, the routine use of mercury ointment applied to the affected part is carried out. As time passes the therapeutic test gains in favor. The rule I follow is, "When in doubt play trumps by treating for syphilis." As a result I have had few regrets. It is true that all joints relieved by mercury are not leutic but the vast majority are.

The second observation is that syphilitic infection of bones and joints is encountered more frequently than is generally realized by the medical profession. The common belief is that a large majority of bone and joint infections are tuberculous, and for that reason overlook many syphilitic lesions. Broca relates twenty cases of knee joint diseases sent to him for an opinion with a diagnosis of tuberculosis, nineteen were due to syphilis. In one hundred cases of syphilitic Mohammedans examined by Lacapers and Laurent, ten percent had joint involvement.

Bardaro says that he has found articular rheumatism of syphilitic origin more often than that from tuberculosis and gonorrhea combined. Caronia found that in seventy children with lesions of the spine and other large joints, 72.3% had inherited syphilis. Clark found in 1100 autopsies, gross joint lesions due to syphilis to be eight percent while tuberculous-lesions were four tenths of one per cent.

Numerous writers have reported cases of syphilitic arthritis which have been treated for other infections such as arthritis deformans, rheumatic arthritis, tuberculosis

and gonorrhea. The frequency of syphilitic lesions of joints has impressed itself on me only in the past two years and I look back upon some past puzzling lesions which if encountered now would be classed as syphilitic.

The third observation is that syphilis does not affect the healing of fractures of bones to any appreciable extent. This is true in the old untreated or poorly treated syphilitics. Albee and other leading bone and joint surgeons place syphilis at the bottom of the list of causes of non-union of fractures. I believe too much emphasis is laid upon the role syphilis plays in the healing of fractures. I have seen fractures unite promptly in the presence of strongly positive Wassermanns and history of luetic infections. I have seen fractures fail to unite with no evidence or history of syphilis even when antiluetic treatment has been pushed to the limit.

In acute syphilitics I am aware that the infection can prevent union of fractures and wish to report one case to illustrate. A young man, age 23, was admitted to the Charleston General Hospital with a simple fracture of the right femur at the middle third. He was treated by traction in a Thomas splint for six weeks without evidence of callous formation. Suddenly he developed a sore throat with severe meningeal irritation and prognosis as to life was indeed poor. A diagnosis of syphilis was made and the Wassermann was returned four plus. Wassermann on admission was negative. During the severe delirium the traction was done away with and for two weeks thereafter he was in no condition to be treated by traction. To the amazement of all the fractured ends of bone had thrown out an enormous amount of callus and there was firm union present. History obtained later was to the effect that six months before admission to the hospital he had a sore on his penis which had been treated by his doctor with a salve and some pills. This had caused the delayed secondary lesions.

My observation has been that the syphilitic in whom large and prolonged treatments of mercury has been required, does not develop the lesions which we are discussing. Mercury seems to give better and quicker results in these lesions than any other one antiluetic remedy. The public apparently is of the opinion that a few "shots" of medicine in the vein is all that is necessary for the cure of primary syphilis; for that reason little if any mercury is taken in the early stages of the disease. During the past two years I have tried to obtain a detailed history of past treatment with special reference to the use of mercury and I have yet to see my first case of bone or joint lesion in which the patient had thorough mercurial treatment in the early stages of the disease.

SOME OBSERVATIONS ON SYPHILIS

By A. L. JONES, M. D.
Wheeling, W. Va.

In discussing Syphilis I am well aware of the magnitude and importance of the subject and certainly believe the great Osler was right when he said in substance that to know syphilis is to know medicine.

To my way of thinking there is no disease in the whole catalog of medical nomenclature that furnishes a more diversified set of symptoms or no symptoms at all than does Lues.

It behooves us as medical men, whether we be surgeons, internists, specialists or what not, to be constantly on our guard, for every line of medical endeavor comes in contact with this most insidious disease.

There used to be a trite saying to the effect that when you have treated the patient for everything else, treat syphilis. It would be far better to think of Lues first; exclude it, then go ahead.

A confrere asked me some time ago if I had arrived at the point when I thought everybody had syphilis. No, but in my opinion a greater percentage of the general population is infected than we realize.

Many physicians have a routine Wassermann made on all their patients upon admittance to a hospital. This is a commendable procedure but oftentimes throws an unnecessary burden upon the laboratory workers. However, no one can gainsay the fact that a routine Wassermann often picks up a case of latent Lues that would otherwise have been overlooked.

This brings up the much-discussed Wassermann test. It must run the gamut for those who believe it infallible and have implicit confidence in all its manifestations to those who absolutely disbelieve any and all of its findings. It is always safe to take a happy medium. Personally, I use it as a diagnostic aid as I would use a stethescope in pneumonia or tuberculosis.

The manifest significance of Wassermann report in its hygienic, economic and social phases makes it imperative that the clinician have a comprehensive knowledge of the factors that enter into its interpretation. To a certain extent these factors vary according to the various serological methods employed in different laboratories. The Wassermann test as made at present varies in a large number of cases.

To stamp a man who has a one or two plus negative history and negative clinical findings as luetic is, to say the least, bad practice. I would advise further observation and serologic study. An occasional mistake in diagnosis, even though it affects only one individual, is a one hundred percent mistake for that individual.

We must remember also that negative serological findings are often found in the presence of active syphilis. The following cases from my records will suffice to prove this.

Case No. 1—A poorly nourished man of 30 presented himself complaining of indigestion and vomiting. Wassermann on both blood and spinal fluid negative. Yet he had an Argyll Robertson pupil, a typical gumma of the lip, another near the elbow, absent knee jerks, positive Romberg and difficulty in walking after dark.

Specific treatment was instituted and the gummata and vomiting cleared up like magic.

In this case we might deduct the inference that there were not enough antibodies present to produce a positive Wassermann.

The great majority of cases referred to me for treatment are in the tertiary stage, many of these presenting clear evidence of central

nervous system involvement. We are especially fortunate in Wheeling in having a keenly alert body of eye, ear, nose and throat specialists and during the course of a year they pick up many cases of ocular palsy, interstitial keratitis, acute iritis, perforated septum, aphonia, etc., the great majority of which have strongly positive Wassermanns.

Case 2, C. D., referred by Dr. Zuback—A poorly nourished adult male of 27, complaining of failing vision, poor appetite, weakness, urinary incontinence and inability to work. Father a mill worker and able to do a hard day's work. Mother in poor health. The patient is the only child, there having been seven miscarriages and one or two full-term children dying soon after birth. Examination shows skull to be of a peculiar bossed shape, interstitial keratitis, pupils fixed, teeth poor, heart slightly enlarged, abdomen negative for tremors or tenderness, knee jerks absent, Romberg positive, ataxia slight, Wassermann 4 plus. The urine was cloudy, showing pus, blood and mucous but no casts. For the last ten years the patient suffered with nocturnal urinary incontinence necessitating the use of a rubber sheeting on the bed. There was also partial incontinence during the day.

Treatment—6 gm. Neo-Arsphenamin at weekly intervals for six doses. After the second injection the incontinence stopped and has not recurred after six months. Six weeks of inunctions were then given one-half Mercuretts (P. D. & Co.), being rubbed in daily for 20 minutes. This was followed by six weeks of Potassium Iodide. Starting with 10 gr. T.I.D. and increasing to 40 gr. T.I.D. Soon after treatment was instituted generalized sharp fleeting pains developed that heretofore had not been present. These soon localized in the abdomen near the appendix region. Constipation was marked with coated tongue and slight fever. Feeling that the pains were tabetic in nature a saline cathartic was given and the symptoms rapidly cleared up. The same lightning-like pains have recurred at intervals but finally completely disappeared. The patient lost weight under this rather mild treatment but eventually gained about 30 pounds, took on a healthy color and has gone to work. The above line of treatment was repeated after a rest period and he is still under observation.

I would not have the reader infer that all our therapeutic endeavors meet with success. Far from it. I believe with Dr. Hall that the man who claims to be 100% successful in all his cases is a star candidate for the Ananias Club.

In Tabes where the posterior columns of the cord are degenerated and the healthy sensory neurones displaced by proliferated neuroglia and connective tissue, no amount of treatment will relieve the ataxia. Yet this fact should not deter us from advising treatment to prevent more serious complications. About this time, however, the patient concludes that the chiropractor around the corner whose claim to medical knowledge was gained by a six weeks correspondence course, is the man to relieve his ataxia. This erudite luminary gravely informs your patient that a subluxated vertebra is the cause of all his trouble and had he been consulted in the first place, et cetera, ad nauseam.

Given a case of primary syphilis with negative Wassermann, how much treatment would you advise? is a question often asked.

Certainly not less than three courses of Neo-Arsphenamin of eight, six and four doses each followed by mercury inunctions or injections or given along with the arsenical as you see fit. The patient is instructed to return for observation and Wassermann at stated intervals for one or two years longer.

I believe every luetic should have the benefit of a lumbar puncture and further treatment governed according to the findings.

A distressing situation one often meets is that of a young man, sometimes under 30, with early Tabes or some muscular palsy due to a hemiplegic attack. They give a history of an initial lesion some ten or twelve years ago with one or two doses of 606. Asked why they did not continue treatment, they generally reply that the chancre or sore throat left and they saw no use of spending money when they felt well. This unfortunate situation may be partly the fault of the physician and partly that of the patient. I believe it our duty when a case of syphilis is presented for treatment to thoroughly explain to the patient the insidious nature of the disease, the inherent possibility of terrible consequences, not only to himself, but to his immediate family and offspring, through neglect. Then after you have painted the picture and he still refuses to heed your admonition, you have done your duty except to report the case to the health department for further action.

The practice of giving the patient so many doses for one hundred or two hundred dollars as the case may be, and inferring, if not openly, expressing that they will be cured with such limited amount of treatment, cannot be too strongly condemned.

The patient likes to be told that four doses at fifty dollars per dose will cure him but the physician that yields to such temptation is plainly mercenary. No other interpretation can be placed upon such action. It is bad for the patient and bad for other physicians who cannot accomplish such wonders.

Let is be understood that I am not criticizing the fee exacted, that is a personal matter, and a physician should be well paid for his services but there should be no impression left, implied or otherwise, that a few doses of 606 at an exorbitant price will effect a cure. Nothing less than conscientious continued treatment over a long period of time can rob syphilis of its terrors.

Before beginning treatment in any case I believe it highly important to give the patient a thorough examination so that we may know his physical assets and liabilities and govern our therapy accordingly. For example, to intensively treat an old nephritic by giving arsenic and mercury at the same time may invite disaster. We must ever bear in mind that we are treating the the patient as well as the disease and in our laudable attempt to annihilate the spirochete we must not let our zeal and enthusiasm over-run good judgment to the ex-

tent that the powerful drug at our command compromise the already impaired tissues of the patient.

Some luetics are quite susceptible to both arsenic and mercury and it is often surprising how little of either drug it takes to produce an aggravating dermatitis or ptyalism. However since the advent of sodium thiosulphate which may be used in either condition, we need fear no permanent damage.

When in the course of arsphenamine therapy the patient complains of numbness or paraethesia of the feet and legs, it is well to suspend treatment as such sensations are reliable signs of arsenic intolerance.

Just a word as to technic. Everybody who does much intravenous therapy works out a technic to suit him. We have given over ten thousand injections by the following method in the last five years.

The needle is 20 gauge, short bevel, a rubber tubing 1½ inches long is attached to the hub. The Neo-Arsphenamine is dissolved in 20 c.c. fresh sterile distilled cold water. The vein in the elbow having been widely distended by a tourniquet, the skin is made tense by retracting with the left thumb while the needle is plunged by one quick jab through skin and fascia into the lumen of the vein. If blood flows freely, connect the syringe and inject slowly.

In closing this rambling discourse on an old, old subject, if I have impressed the reader with the far-reaching importance of thorough and systematic treatment, protecting not only the patient, but the taxpayer, society in general and generations yet unborn, my efforts shall not have been in vain.

TREATMENT OF SYPHILIS

By E. W. HORTON, M. D.
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Read Before the Mercer County Medical Society, June 1925.

The subject of the treatment of syphilis is in my opinion one of the broadest in medicine. To be able to treat syphilis scientifically means that one must know syphilis —its etiology, germ characteristics, methods of entrance into the body, period of incubation, modes of invasion, symptoms, pathology, diagnosis, prognosis and treatment, all of which you have heard amply discussed.

Sir William Osler said, "He who knows syphilis, knows medicine."

The consensus of opinion of the greatest syphilographers is that the treatment of syphilis should be intensive and continuous. The usual short courses of treatment are not sufficient and I think we should insist upon more and longer continued observation and medication.

Physicians have become convinced that, despite its value, the Wassermann reaction should receive scant recognition during the first year of treatment. Patients should continue to receive arsenic, mercury and potassium iodide regardless of a negative Wassermann.

Too many doctors, especially the general practitioner are prone to treat routinely and according to the dictum set down in text books. Instead of giving a patient one or two short courses then letting him go to await developments, I believe he should have very active treatment with arsenic, mercury and potassium iodide during the first year,

and afterward be under close observant medical care with Wassermans of blood and spinal fluid every four to eight weeks. It is most essential that the physician in general practice should realize his responsibility and make a special study of each patient, and I believe that more variations appear in these cases than in any others of which I know. It is only by so doing that we can adequately cope with our most deadly foe, Syphilis, and thereby relieve our patients, minimize paresis and tabes, saving the state and nation great expense and alleviating untold suffering.

Dr. John A. Fordyce treats cases of positive dark field and negative Wassermans with eight intravenous injections of salvarsan, .3 to .5 grams, first three doses every other day, the remaining five every fifth to seventh day; second course after an interval of from four to six weeks.

Patients who have never developed positive serologic findings are considered aborted cases and are closely observed for at least one year with monthly blood tests. If positive Wasserman develops during this observation period they are treated as early secondary cases and a course of .3, .5 or .6 grams of salvarsan are given every other day and the five remaining doses given five to seven days apart. Mercury salicylate 1 to 1.5 grains are given hypodermatically every seven days; or a soluble preparation, bichoridal, 1 grain hypodermatically every four to five days. After four to six weeks rest, despite probable negative Wasserman, eight more weekly injections of salvarsan and mercury are administered and if necessary patients are given a third course, the physician being constantly guided by serologic and urinary findings.

The most indefinite part of any plan of treatment is the length of time for which it should be continued. A good routine is to treat early syphilis continuously until complete negative serology of the bloody and spinal fluid has been obtained and for one year thereafter. While it is true that some patients will be cured with less than this amount of treatment, it is equally true that others will not be cured and there is at present no means of early separation of the two groups, the safe plan, therefore, is to treat all patients up to the point of cure of the majority. I am not including in the limited confines of this paper the treatment of tertiary and latent syphilis and the many complications that may arise, my principal intention being to urge sufficient treatment, particularly in the early stages.

In early syphilis I consider it best to begin with salvarsan, the first course with eight doses at three to seven day intervals, followed by mercury in some form; the two succeeding courses of six doses each at weekly intervals, allowing a rest of from two to four weeks between each course, the rest period being gradually lengthened between courses. If further treatment be needed: (a) Eight injections of salvarsan of from .3 to .6 grams each, at intervals of from three to eight days followed immediately by eight to twelve injections of mercury at from three to seven day intervals; (b) six injections of salvarsan at five to seven day intervals, followed immediately by six to twelve injections of mercury; (c) six injections

of salvarsan, followed by mercury as in the two previous courses, thus making twenty injections of salvarsan and from twenty to thirty injections of mercury; (d) allow six to twelve weeks rest; (e) further treatment should be guided by Wasserman tests.

Summary

1. Realize the seriousness of the disease and treat the patient, impress him with the importance of his cooperation (appearing regularly and paying his bills).

2. Advise him as to the outcome, especially if neglected.

3. Insist upon more intensive and longer treatment of luetic infections.

4. Do not place too much value upon negative blood Wassermans, for a Wasserman is of value only when it is positive.

5. Too many physicians are inclined to pronounce a patient cured when he shows a negative blood Wasserman and discharge these patients without serologic examinations of the spinal fluid.

6. Most observers believe that salvarsan and mercury must be used intensively and for long continued periods to get the best results.

7. Insufficient treatment of luetic patients results in much human wasteage and is an economic burden upon the tax-payer, as the luetic patient of today may become the paretic or tabetic of tomorrow, who, in a large percentage of instances, must be cared for in public institutions.

8. It is essential that a syphilitic patient be kept under observation as long as he lives, for certainly in this matter "eternal vigilance" on the part of both doctor and patient is the price demanded.

Since the days of Hippocrates physicians have battled with this scourge of mankind, and,

"'Till Earth's last picture is painted, and the tubes are twisted and dried,
When the oldest colors have faded and the youngest critic has died,
We shall rest, and faith we shall need it—lie down for an aeon or two,
Till the master of all good workmen shall set us to work anew."

THE KAHN PRECIPITATION REACTION IN THE DIAGNOSIS OF SYPHILIS

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Introduction

In 1906 Wassermann and Bruck applied the Bordet-Gengou phenomenon of complement fixation to the sero-diagnosis of syphilis. Just one year later Michaelis attempted to devise a simpler method for the laboratory diagnosis of luetic infections, approaching the subject from the standpoint of specific precipitin reactions. Since that time more or less spasmodic efforts have been made to develop a procedure which would be simpler than the classical Wassermann or its modifications and yet retain the specificity of the older test. The most promising of these simpler reactions and also the most recent is the Kahn Precipitation test[2]. It will be the purpose of this paper to record the results obtained in a comparative study of 1000 sera on which both the Wassermann and the Kahn tests were

performed and to interpolate certain observations relative to the latter reaction.

Apparatus

1. Tubes: Serological, 50X13 mm. Pipettes: 1 cc graduates in .01 cc; 5 cc graduates .01 cc. The pipettes should be thoroughly clean as for the Wasserman reaction, but need not be sterile.

2. Saline: .85% NaC1 (Squibb) in distilled water.

3. Serum: Centrifuged free of cells. Inactivated at 56° C. for one-half hour. This is not essential.

4. Antigen: The antigen used is an ether alcoholic extract of dried beef heart prepared according to the directions of Kahn as recorded by Keim and Wile[3]. This antigen is fortified by 4% cholesterin. Recently at the suggestion of Dr. Kahn[4], we have used a 6% cholesterin antigen with improved results.

Dilution of antigen: A certain quantity (depending on predetermined titre) of antigen is measured into a 15 cc tube. A certain quantity of saline is measured into a second small tube. The saline is poured into the antigen tube and the mixture is immediately poured back and forth several times. The diluted antigen is now ready for use and should be used within one-half hour after dilution. It is preferable to place the diluted antigen in the tube first and then add the serum.

The test proper:

Tubes	1	2	3
Antigen-saline mixture cc	.1	.05	.025
Serum cc	.3	. 3	. 3

The set up is made in an ordinary serological rack. Shake racks vigorously for one minute. Take readings. Allow to stand one-half hour at 37.5° C. Shake for one minute and take final readings.

Reading the reactions: Hold the tubes above the level of the eyes and run the contents out in a very thin layer, using a northern light as a source of illumination. A dark background beyond the window is helpful.

A heavy precipitate in all three tubes is read as four plus. A lighter and finer precipitate as three plus, etc. A clear serum is read as negative. The final reading is the average of the three tubes.

Discussion of technic: We have found experimentally that the antigens employed for the Kolmer and for the Craig modifications of the Wasserman are entirely unsuitable for this reaction. As the antigen is the chief and only reagent to be considered in the performance of the test, it naturally follows that it should be prepared very carefully and strictly in accord with the method of Kahn[5]. We have used samples prepared in this laboratory and at the Michigan State Board of Health Laboratory with equally good results. The dried beef heart supplied by the Digestive Ferments Co. of Detroit has proven satisfactory for the preparation of the antigen. We have found the following precautions necessary to preserve the initial titre of the extract:

(a) The antigen should not be kept at high or low temperatures. We have found 38° F. and 85° F. equally injurious. It is best kept at approximately 60° F.

(b) The antigen should not be more than six months old. After this period a portion of the cholesterin is reprecipitated and the titre reduced.

(c) All antigens and stock extracts should be kept in the dark.

After preparation all antigens must be titrated according to the method of Kahn[5] to determine the exact proportions in which they should be mixed with saline at the time of using. This will be found to vary somewhat with each sample. The three minute period of shaking was originally advocated but the one minute period seems to be quite sufficient. However the agitation must be brisk and vigorous during this time. The strongly positive reactions are read quite easily at the end of the shaking period. Certain sera give weak reactions at the end of the initial shaking period and become stronger following incubation. The negative sera remain clear during this period and the readings check more closely with the Wasserman and clinical findings when the one half hour incubation is employed. Overnight incubation either at ice box or room temperature tends to give false positive.

The Herrold[6] modification of Kahn's original technic has been carried out on 100 sera. It was found that the results of this procedure were exceedingly difficult to interpret, especially in turbid or lipemic sera which gave consistently false positives. This method was abandoned and the 100 sera are not included in our series.

Although the majority of the tests listed above have been carried out on sera previously inactivated for the Wasserman, we have at times performed the test on unheated sera with equally good results.

In reading the reactions it must be borne in mind that any given four plus reaction will show quantitatively less particles in the tube containing .025 cc antigen compared with the tube containing 1 cc antigen. The test is read four plus in all tubes in spite of the quantitative difference in the number of particles in the three tubes.

Certain samples of antigen, when brought in contact with positive sera, precipitate a heavy cloud of very fine granules, while others precipitate large flakes relatively few in number. The heavy cloud of fine granules may be overlooked by an inexperienced observer and the serum recorded as negative. These finally granular precipitates should be recorded as positive as well as the courser ones.

The light by which the reactions are read is of considerable importance. Daylight from the north is preferable to all others. Artificial lights as a whole occasionally show up a fine precipitate in negative sera which is not visible by daylight. Readings with a hand lens will result in the recording of false positives. We have had no experience with the Micro method recently described by Elliott and Todd[7].

Tabulation of results obtained by paralleled tests (Wasserman & Kahn) on sera: Total number of sera, 1000; negative, 819; positive, 181; number of sera in which the two tests agree, 984; number of sera in which the two tests disagree, 16; percentage of agreement, 98.4.

Details of cases in which the two methods disagree, positive Wasserman, negative Kahn: Case 1, Wasserman, one plus, precipitation negative, treated syphilitic; Case 2, Wasserman one plus, precipitation negative, no clinical evidence of syphilis; Case 3, Wasserman one

plus, precipitation negative, probably syphilitic; Case 4, Wasserman three plus, precipitation negative, no evidence of syphilis; Case 5, Wasserman one plus, precipitation negative, probably syphilitic; Case 6, Wasserman one plus, precipitation negative, no evidence of syphilis; Case 7, Wasserman two plus, precipitation negative, later give negative Wasserman; Case 8, Wasserman one plus, precipitation negative, no evidence of syphilis; Case 9, Wasserman two plus, precipitation negative, no clinical history obtainable; Case 10, Wasserman one plus, precipitation negative, no clinical history obtainable.

Negative Wasserman, positive Kahn: Case 11, Wasserman negative, Kahn three plus, probably syphilis; Case 12, Wasserman negative, Kahn one plus, no clinical history obtainable; Case 13, Wasserman negative, Kahn two plus, probably syphilitic; Case 14, Wasserman negative, Kahn one plus, no history of syphilis; Case 15, Wasserman negative, Kahn three plus, very probably syphilitic; Case 16, Wasserman negative, Kahn one plus, probably not syphilitic.

Discussion of Table

The Wasserman in use in this laboratory is the Craig modification, using two units of complement and one unit of antigen. Incubation is carried out in the water bath at 37.5° C. for two hours. The results are read as follows: Complete inhibition four plus; 90% inhibition three plus; 50% inhibition two plus; less than 10% inhibition one plus; complete inhibition negative.

Readings of the Kahn test are made by both authors working independently and before the results of the Wasserman are known.

It will be noted from the table that the percentage of positives (18%) is rather high in this series. Many of the 181 positive cases recorded are treatment cases, so weakly positive as well as the strongly positive sera are included.

No serum gave a four plus Wasserman and a negative Kahn or vice versa. One case giving a three plus Wasserman (Case 4) had no history or clinical evidence of syphilis. Two cases (11 and 15) from the eye, ear, nose and throat service, gave three plus Kahn reactions and negative Wassermans. Both of these cases showed clinical evidence of syphilis. All other disagreements were in the weak reactions (one plus and two plus). In reviewing the cases in the light of the clinical findings in which the Wasserman was positive and the Kahn negative, the older reaction was believed to be correct in three cases and in error in five. In the second table (positive Kahn and negative Wasserman), the precipitation test was probably correct in three cases and wrong in two. As it is often difficult to obtain accurate clinical data concerning the cases mentioned, it is impossible to draw very definite conclusions. However, a study of the tables seems to indicate that the Kahn reaction in our series at least equals the Wasserman in sensitivity and specificity.

Comment

We feel convinced that the Kahn reaction is the most satisfactory and reliable reaction of this type so far introduced. The Sacks Georgi[8] and the Meinicke[9] tests require forty-eight hours incubation and at the

end of this time frequently show sufficient contamination to lead to false positives. The method of Dreyer and Ward[10] due to its complication offers very little of practical advantage over the Wasserman. The turbidity of the antigen following dilution used in the method described by Wang[11] makes the final readings difficult of interpretation. None of the above mentioned difficulties are encountered with the Kahn technic.

Numerous reports have appeared in the last year in which the precipitation reaction has been compared with the Wasserman. The percentage of agreement varies in the two tests from 94.2% (Detweiler)[12] to 98% (Moody)[13]. Experience has shown that this percentage of agreement is as high or higher than would be obtained by two or more laboratories conducting Wassermann tests on the same sample of blood but using different modifications of the classical test. It is quite true that, as Detweiler[12] has pointed out, there is little chance for disagreement in a large series of negative sera and the number of positive and treated cases, in any series, must be kept in mind in the interpretation of percentage figures. We cannot agree with this author, however, in the statement that the Kahn reaction is slow in becoming positive, following primary lesions. We feel that a positive reaction develops during the primary stage as quickly as it does in the Wasserman and that treated cases are somewhat slower in becoming negative. In several cases classified as "latent" syphilis, the Kahn test has proven more delicate than the Wasserman (cases 11 and 15 above). We have noted that in all reports which are more or less unfavorable to the Kahn reaction, that either the early technic of Kahn has been used or some essential step of the more recent method modified.

We have not encountered a single serum in our series to which the Kahn test was inapplicable. This has included sera from cases of diabetes, pregnancy and nephritis which occasionally give weakly positive Wasserman reactions. Hemolyzed, lipemic, anticomplementary and bile stained sera have offered no difficulty. This in itself is a distinct advantage as blood is often received by mail badly hemolyzed and the precipitation test may be reported on these bloods when the complement fixation is impossible.

Kolmer and Yagle[14] report that the Kahn test did not give false positives in a series of twenty-seven lepers studied by them.

Spinal Fluid: At the present time the precipitation reaction has been found to be entirely inapplicable to spinal fluid. We have attempted to repeat the work of Herrold[15] whereby the reagin is precipitated with the globulin and redissolved in a minimum quantity of saline. Our results have been unsatisfactory with this method. Further experiments leading to the application of the test to spinal fluid are now under way. When one considers the uncertain status of the Wasserman reaction in its early days and the rather poor results obtained for some time after its introduction, one is inclined to believe from the already favorable showing of the precipitation reaction that much may be expected of it in the future.

It is urged from the very nature of the test that the term "precipitation" be consistently applied to it. It is often erroneously mentioned as the "precipitin" reaction which indicates an entirely different type of serologic reaction.

Summary

1. The results of parallel Wasserman and Kahn precipitation tests on 1000 sera are reported. A percentage of 98.4 was obtained.

2. The precipitation test was found to follow the Wasserman readings closely in all types of syphilitic infections and was perhaps slightly more sensitive in treated and latent cases.

3. It was not interfered with by anticomplementary or hemolyzed sera, or by various conditions supposed to affect the Wasserman.

4. It is urged that the term "precipitation" be applied to this reaction in preference to "precipitin."

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A DIGEST OF CHANGES BETWEEN THE 1921 AND 1924 TAX LAWS

By H. ARCHIBALD HARRIS
Certified Public Accountant

The following digest has been compiled by W. M. Swindell, Jr., Economist, and Bertha M. Holmes, Washington manager, both of the staff of Archibald Harris and Company, under the direct supervision of Mr. Harris. Archibald Harris and Company are counselors on Accounting and Taxation for the Illinois, Indiana and Tennessee Bankers Associations. They also advise a number of industrial and professional organizations on accounting and tax matters.

Through a special arrangement with Archibald Harris and Company, Certified Public Accountants of Chicago, readers of this publication may obtain free tax or accounting advice on the new or old revenue bill. Readers may submit their inquiries to the magazine or to Archibald Harris and Company, Certified Public Accounts, Marquette Building, Chicago, Illinois. Please men--tion the name of this publication in writing direct to the author.

Credits Allowed for Normal Tax Purposes

Dividends paid by a corporation organized under the China Trade Act are not allowed as credit for normal tax purposes as are other dividends.—Section 216 (a).

Married person or head of family—$2,500.

Personal exemption allowed United States citizens or residents—$1,000 or $2,500— shall, if status of taxpayer changes during year, be changed also. If he was single four months and married eight months, he has one-third of $1,000 plus two-thirds of $2,500. The month in which the change occurred shall be counted according to which status occupied the greater portion of the month.—Section 216 (f) (2).

Deductions

Contributions by individuals to fraternal societies, etc., operating under a lodge system or to a trust shall be allowed as deductions if the contributions are used for religious, scientific, education or other named purposes.

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Deductions shall not ordinarily exceed 15% of the net income but if in the taxable year and in each of the ten preceding years the amount of contributions combined exceeds 90% of the taxpayer's net income for each year, then the full amount of such contributions shall be allowed. —Section 214 (a) (10).

Earned Income

Earned income is any compensation for services actually rendered —does not include amounts received by a stockholder of a corporation which represent distribution of profits rather than compensation for services.

Where a taxpayer is engaged in a trade or business and both personal services and capital are material income-producing factors a reasonable allowance as compensation for the services of the taxpayer shall be considered earned income, such "earned income" however, not to exceed 20% of his share of the net profits of the trade or business.—Section 209 (a) (1).

"Earned income deductions" means any deductions under Section 214 properly allocable to earned income.—Section 209 (a) (2).

"Earned net income" excess of earned income over earned income deductions.

If taxpayer's net income from all sources is not more than $5,000 it shall be considered earned net income.

If the net income is more than $5,000 at least $5,000 of it shall be treated as earned net income.

Earned net income shall never be more than $10,000.—Section 209 (a) (3).

An individual shall receive as a credit against his normal tax 25% of the amount of the tax computed on his earned income at regular rates. Such credit shall in no case be more than 25% of his normal tax. Section 209 (b).

The method of handling partnership earned income is put up to the Commissioner who is authorized to draft regulations.—Section 209 (c).

Fiscal Years of Partnership

Partnership has a fiscal year. If the law in first part of fiscal year is different from the law in the second part, the partnership shall compute its income under the laws applicable to both. The partners shall report that proportion of the income computed in each year which correponds to the number of months in each calendar year falling within such fiscal year.

Partnership income taxable at rates for the second year shall be added to the other income for the second year and the total placed in the lower brackets for such year. The part of such income subject to the rates for the preceding calendar year shall be placed in the next higher brackets of the rate schedule applicable to that year. (This shall be included in the taxpayer's income return for the calendar year during which the fiscal year of the partnership ends.) — Section 209 (b).

ANNOUNCEMENTS AND COMMUNICATIONS

EXAMINATION QUESTIONS GIVEN BY THE BOARD OF EXAMINERS FOR REGISTERED NURSES IN THE STATE OF WEST VIRGINIA, OCTOBER 15, 1924

1. What is accomplished by the administration of normal salt solu-

tion? (b) Name three methods of administration and three indications for its use.

2. Define analgesic, emetic, antidote, hypnotic, anthelmintic. (b) Give an example and dose of each. (c) What is apomorphine? Give its dose.

3. Name four poisonous drugs in the use of which the nurse must exercise caution. (b) Give the dose of each.

4. Describe briefly the circulation of blood through the human heart? What is concealed bleeding?

5. Where is the diaphragm? What is its function? Name two important structures which pass through the diaphragm. Where is the mastoid process?

6. Describe in detail post-operative care of an abdominal case. Describe after-care of tonsillectomy.

7. What is a compound, complicated fracture of the humerus? How would you prepare to dress this injury? Name three chief symptoms of a fracture.

8. Give the nursing care of a case of diphtheria. Name two complications. How would you protect those coming in contact with the disease? What is the Schick test?

9. If a patient is brought in unconscious, how would you tell whether he was suffering from diabetic coma, uraemia, alcoholism, apoplexy or opium poisoning?

10. What symptoms would lead you to believe a patient had cancer of the uterus? Name a few of the ways in which a nurse may give counsel to a case of beginning cancer. Is cancer contagious?

11. Define diabetes; give diet. What is insulin?

12. What is the cause of typhoid fever? (b) How may typhoid be prevented? (c) Name three complications.

13. Define still birth. Outline care of the breasts in such a case.

14. What measures would you use if a new born infant failed to breathe? Define foramen ovale, meconium, fontanelle. Give the cause and prevention of opthalmia neonatorum.

15. Define ectopic gestation. What is the chief danger from it?

16. If you were nursing an obstetrical case who developed a chill, temperature of 105 and a rapid pulse, what would you suspect? What would you do?

17. Define erysipelas. What germ produces it? Name five antiseptics. Name two disinfectants.

18. Name the articles contained in a well-balanced meal. Explain the food principles and their functions.

19. Define whole milk, certified milk, sterilized milk, and pasteurized milk. What is meant by adulterated foods? Name three foods that have a laxative value.

20. Write a short paper on discipline and loyalty, showing why it is necessary for the happiness and orderly conduct of a hospital.

The semi-annual examination for nurses was held at Wheeling, Charleston, Bluefield and Keyser, on Wednesday, October 15th, under the supervision of the Board.

The general tone of the papers submitted was superior to any examination held in recent years, showing a higher standard of teaching in the various accredited schools of the state.

The Board hopes the hospitals conducting training schools will remember that no applicant will be

received for examination in the future who has not met the requirements of the law, which is:

Sec. 29d. IV. No person shall be admitted to examination who has not presented, upon a blank to be provided for that purpose by the board, her application to the board of examiners, at least ten days prior to the date set for the examination; every application shall be accompanied by the payment of a fee of ten dollars ($10.00), which fee shall not in any case be returned; no applicant shall be examined who does not first furnish satisfactory evidence that she is at least twenty-one years of age, of good moral character, and that she has had at least one year of high school training, or its equivalent, and that she has been graduated from a recognized school for nurses; provided, however, that the applicant shall be eligible for examination if she has so far completed her training in a recognized school, that she is to be duly graduated therefrom within three months from and after the date of the examination, in which case no certificate is to be issued to her until the diploma of her school, duly attested, is presented to the board of examiners and found satisfactory; that a training school, to be a recognized school for nurses, within the meaning, and for the purposes of this act, must be connected with a hospital having a daily average of at least fifteen patients; such school must not send out pupil nurses for private duty; such school must have a three year course of training covering, at the least, the subjects most important and essential, as required by the state board of examiners, which subjects must be taught in a proper manner and under the advisory supervision of the secretary of the board; and such school must not accept applicants who have not had at least one year of high school training, or its equivalent; providing only that if a school for nurses unable to give a full three years' course, but otherwise meeting the requirements of a recognized school, give a two years' course and affiliate for a third year's training with a recognized school for nurses, or affiliate for a third year's training with another two years' school which complements the training of the first by supplying the courses and subjects which the first lacks, a graduate of such affiliated schools shall be considered a graduate of a recognized school; the board of examiners may, without examination as above provided, issue a certificate to any applicant who shall furnish satisfactory proof to the board that she is duly authorized to practice nursing as a "registered nurse" in another state, or in the District of Columbia, provided that the laws of such state or district require qualifications at least equal to those required in the state of West Virginia and provided that the laws of such state or district permit reciprocal rights in this respect to registered nurses of the state of West Virginia; but such applicant must further furnish satisfactory evidence that she intends to remove from that state or district and to reside and practice as a registered nurse in the state, provided however, that such applicant must make

due application accompanied by the payment of the statutory fee of $10.00.

Frank LeMoyne Hupp, M. D.,
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Wm. P. Black, M. D.,
Harriett B. Jones, M. D.,
Wm. F. Dailey, M. D.,
Mrs. Andrew Wilson, R. N.,
Secretary,
Board of Examiners.

Fairmont, W. Va.,
Nov. 10, 1924.

DR. JAS. R. BLOSS,
Editor W. Va. Medical Journal.

My Dear Dr. Bloss:

I have read, with interest, the article, "Proposed Legislation to Govern Those Practicing the Healing Art in West Virginia," as published in the November issue of your journal, and highly approve the provisions set forth therein.

When this bill is introduced, the questions will naturally arise, in the minds of the legislators as well as in the minds of the people at large, Why should these provisions be enacted? By whom are they sponsored? In what spirit are they brought forth? Who is to be benefited by their being written into the statutes?

Further it will be asked, Is this bit of proposed legislation constructive or destructive? Will it benefit the people at large, or only the regular medical fraternity, who are its sponsors?

Emerson says, "The wise know that foolish legislation is a rope of sand that perishes in the twisting, that the State must follow and not lead the character and progress of the citizen; the strongest usurper is quickly got rid of; and they only who build on ideas, build for eternity; and that the form of government which prevails is the expression of what cultivation exists in the population which permits it." * * * "If destructive and aimless, it is not loving, it has no ulterior or divine ends, but is destructive only out of hatred and selfishness."

If this bill is to be enacted, and the law enforced, the citizen must be made to see that he is the beneficiary.

It will be necessary then to carry on a state-wide campaign of education.

As to the best available means to this end my mind is not clear.

The American Medical Association, with its publication Hygea, is along the right lines, but its circulation is, as yet, too limited for our purpose in the position in which we find ourselves at present.

The lay press is with few exceptions not available, for reasons that are well known to those of us who have given the matter even a superficial survey. This is in part due, no doubt, to a misrepresentation in most instances, on the part of its management, since they are desirous, I believe, of enlightening the public on matters which may promote the general welfare. There are, however, other considerations.

Probably the most effective means of accomplishing this end, in the present instance, would be for each member of the regular profession to conduct an educational campaign of his own among his friends and patrons. This to be supplemented, when possible, by

talks and papers, presented to lay organizations and before meetings of a public nature.

It ought not to be difficult to convince any intelligent individual of the justice and desirability of this proposed revision of the law, or the injustice to the people and undesirability of allowing those who are unequalled or poorly qualified to be entrusted with the state's most valuable asset, namely, the health and lives of its citizens.

The average citizen must know, if he considers the matter, that he is entirely incapable of judging as to the qualifications of the man to whom he entrusts his own physical well-being and that of his family. It is only reasonable to suppose that when the matter is brought to his attention he will be willing that the State protect him in this matter. It is the duty and function of the state so to do.

It is necessary, however, that he be convinced that the state is affording him such protection and not interfering with his personal rights and liberties.

Quoting Emerson again, "We must trust infinitely to the beneficent necessity which shines through all laws," * * * "an abstract of the codes of nations would be a transcript of the common conscience. Governments have their origin in the most identity of men. Reason for one is seen to be reason for another, and for every other."

The public mind must be disabused of the idea that in proposing this bit of legislation the medical fraternity is motivated by personal animosity or a desire to promote its professional or financial welfare at the expense of any individual or group of individuals.

If the public can be brought to a realization of the higher ideal aimed at, namely, the protection and promotion of its most valuable possession, the matter will be easily accomplished.

When brought to his attention, the average individual will grasp the idea of the necessity for anyone being thoroughly grounded in the fundamentals of any science with which he proposes to deal. Therefore he will admit the absolute necessity for anyone desiring to practice medicine having the best possible understanding of the fundamental sciences on which the rational practice of medicine rests, namely, anatomy, physiology, embryology, histology, pathology, bacteriology, chemistry, physical diagnosis, etc. The claim of this bill for unbiased consideration should be apparent from the provisions set forth therein, "no applicant for license to practice medicine in this state shall be rejected because of his or her adherence to any particular school or theory of medicine,"

This to my mind is not only a wise, but essentially just and equitable provision. When an individual has become thoroughly proficient in the fundamentals of medicine and is as a result of such proficiency capable of recognizing and diagnosing disease, let him then apply any "system" or means that may seem to him rational for the cure, eradication or alleviation of the condition with which he has to deal.

The aim of this bill is, as I view it, only to require all applicants

to fully qualify on the fundamentals, and is a matter vital to the public welfare, protecting as it will, if enacted, the public health.

That the existence and activities of the various pseudo-medical and pseudo-scientific cults that flourish in our midst, lessens the amount of work that the regular physicians are called upon to do, is a theory held by most people, and that this is the reason why the regular fraternity is unfavorable to them is a matter of common belief.

It can be conclusively shown that this assumption is without foundation in fact. In reality the failure to recognize and properly manage many of the diseases and minor maladies in the early and easily remediable stages is a calamity to the individual and a distinct loss to the state, and instead of lessening the work, greatly increases the labors of the regular profession, while adding to the morbidity and mortality rates of the citizens. This failure greatly obstructs the progress of preventative medicine, which is now the primary aim of all public health organizations.

That we are moved by a higher ideal than personal and pecuniary benefits, the people must be led to see, otherwise no legal enactment can be effective.

In conclusion the law relative to the practice of medicine as in relation to prohibition or anything else must be backed by public sentiment, otherwise it is a dead letter.

Any statute, in any state, in any land, will reflect in its text and the manner of its observance, why so much culture and virtue as inheres in the citizens.

Sincerely,

CLAUDE L. HOLLAND,
M. D., F. A. C. P.

Nov. 13, 1924.

West Va. Medical Journal,
Huntington, W. Va.

Dear Sirs: We are interested in trying to determine in a general way the prevalence throughout certain sections of the United States of cases of lead poisoning due to the use of lead pipe in household plumbing.

In this connection I am writing to ask whether any cases or epidemics of lead poisoning have come to the attention of your association, which could be traced to the use of lead pipe in household plumbing systems and which have been considered sufficiently noteworthy to have caused comment among the profession in your territory.

I am enclosing a questionnaire for your guidance, outlining in brief the points in which we are particularly interested, although it is not necessary to adhere strictly to the questions contained therein.

The state medical journals have been kind enough to help us out on previous occasions on small research matters undertaken in behalf of our clients, the Victor X--Ray Corporation and the Patterson (X-Ray) Screen Co., and consequently we hope that they will be able to help us out on the subject outlined above.

Any information which you may be able to give us on the subject

will, I assure you, be greatly appreciated.

Yours very truly,
A. V. WEAVER.

The Thos. F. Logan Co., Inc., Business Research Dept., 680 Fifth Ave., New York City.

QUESTIONNAIRE

1. How prevalent are cases of lead poisoning in your territory? Common, occasional, rare.

2. Can the cause of such cases be traced to the use of lead pipe in plumbing? Yes, no, not determined.

3. Have there ever been any epidemics of lead poisoning in your territory? If so, please state briefly the particulars.

4. What is the general attitude of the profession toward the use of lead pipe for plumbing? Dangerous, detrimental to the health, not detrimental to the health, indifferent.

5. Have any articles on this subject ever appeared in your publication? If so, we would appreciate your sending us copies of the issues in which they appeared and would gladly meet whatever charge you make for such copies.

NEW YORK SKIN AND CANCER HOSPITAL

Alumni New York Skin and Cancer Hospital graduates of this postgraduate school are requested to send their present professional office address to the secretary of the reorganized Alumni Association.

DR. HERMAN GOODMAN,
15 Central Park West,
New York City.

COPY
5170

J. W. Hartigan vs. Monongalia County Medical Society

Mandamus Writ denied.
Miller, Judge

One can not by mandamus compel a medical society to restore him to membership therein, when the proof shows conclusively that he was not elected to membership in the manner prescribed by the society's by-laws, though the president and secretary of the society erroneously announced his election, and the secretary advised him that he was elected.

Miller, Judge: By his petition for a writ of mandamus relator prays to be retsored to membership in the Monongalia County Medical Society, and to all the rights, benefits, privileges, and assets accruing to members of said society.

The petition alleges that he is duly qualified for membership in the respondent society, having been a practicing physician for more than forty years, and being a graduate of an accredited medical college; that in order to be eligible to membership in the National Medical Society, the applicant must be a member of the State Medical Society, and that membership in a county society is a prerequisite to membership in the state society; that in April 1923, petitioner applied for membership in the respondent society, and with his application handed the society's secretary the required initiation fee; that a short time thereafter he was advised by the secretary of the society that he had been elected to membrship therein; that a few weeks thereafter he received from the said sec-

retary a letter, returning to him the initiation fee paid, and advising him that at a meeting of the society, called at the petition of sixteen members thereof, a motion to rescind his election was carried. Petitioner charges that he was duly elected a member of the respondent society, and entitled to all the rights and privileges of membership therein; that the attempted rescission of his election was in effect expulsion from the society without notice to him and without giving him opportunity to be heard in his own behalf; that the special meeting was irregular; that the acceptance of the initiation fee and the notification of his election constituted a contract between him and the society, by the terms of which he was entitled to all the rights and benefits accorded to members therein; "that among the benefits and advantages of medical societies accruing to the members as set forth by the society are the following: (1) 'It keeps him in touch with medical progres;' (2) 'It gives him a larger perspective'; (3) 'It gives him a better standing with his patrons'; (4) 'It gives him a better standing with business men'; (5) 'It gives him the support of the profession in everything honorable'; that the knowledge and information which a member of the said medical societies acquires from association, discussion, lectures, reports, etc., at meetings of said societies can not be acquired to the same extent in any other way; and that these defendants wrongfully, unjustly and without due process of law deprived this petitioner of the opportunity to acquire knowledge, skill, ability and increased professional earning powers afforded to members of said medical societies." And it is further alleged that by wrongfully expelling him from the society the defendants are damaging his professional reputation and standing as a physician and surgeon, and are thus decreasing his earning power in the practice of his profession.

Respondents admit that petitioner is a qualified physician; that he made application to the society for membership; that he was notified by the secretary that he had been elected to membership, and afterwards advised, after the special meeting of May 15th, that his election had been rescinded and his application fee not accepted. Respondents aver that the by-laws of the society provide that election to membership therein shall be by four-fifths of the votes of the members present at the meeting; that at the meeting held on the 1st day of May, eighteen members were present; that at least six votes were cast against the admission of petitioner to membership; that the special meeting of May 15th was called pursuant to the by-laws of the society, by the president, at the written request of sixteen members; that at the special meeting eighteen members were present, five constituting a quorum, and that it developed at that time that at least six members had voted against the admission of petitioner into the society at the previous meeting; that petitioner was not a subscriber to the constitution and by-laws of the society, as all members are required to be; and that, therefore, he never was a member of the society, and never entitled to any of the rights and benefits pertaining to membership therein. It is specifically alleged that petitioner was not duly

elected to membership in the society, and that he was not entitled to notice of the special meeting of May 15th, because he had not been invested with any rights in the society.

There is no replication of the answer and return. Petitioner simply demurred thereto. No proof is offered by the relator. The respondents offer to support their answer and return nine affidavits. One affiant says he did not vote on petitioner's application for membership. Six of the affiants say they were present at the meeting at which petitioner's application was voted upon, that each cast a written ballot in the negative, that they were surprised when the announcement of petitioner's election was made, and that they did not know at the time how many members had voted in the negative, and were, therefore, not in position to raise the question as to the correctness of the decision of the president in announcing the result of the ballot. The secretary, by his affidavit, swears that he did not ascertain how many votes were cast for the admission of petitioner and how many against, and that he was misled and mistaken when he notified relator that he had been elected to membership. The president swears that when he announced the election of petitioner to membership, he did so erroneously and without taking time to determine whether four-fifths of the membership present had voted for the admission of respondent as a member of the society.

Only such portions of the by-laws of the society as are set out in the answer and return, above mentioned, are in any way made a part of the record. The minutes of neither of the two meetings are exhibited. But it is averred that petitioner was not elected to membership in the society in the manner provided by the by-laws thereof; and that the special meeting was duly and regularly held.

Counsel for petitioner, in their briefs, assume that he was duly elected, and that he was afterwards expelled without notice to him. All of the authorities cited and relied on are cases where regular members of the associations were expelled, in some cases without notice. And it has been held that a corporation or voluntary association may be compelled by mandamus to reinstate to membership one who has been expelled therefrom in an irregular manner, especially where he has been deprived thereby of some property right, though some courts have refused to exercise jurisdiction to control the internal affairs of voluntary associations. We do not deem it necessary to cite the cases so holding, or to make further mention of the proposition advanced, for the reason that the real question in issue here is whether or not petitioner was elected to membership in the respondent society.

Relator alleges that he was elected; that he was notified of his election; and that he handed to the secretary of the society with his application the required initiation fee. He shows no other facts from which it could be inferred that he was elected to membership. The answer and return specifically denied

such election, and sets out facts in support of respondents' position. Petitioner has not replied or called for proof; but respondents have offered evidence in proof of the facts set out in their answer and return in answer to the allegations of the petition. On demurrer to the answer and return, we think it sufficient to defeat petitioner's case. The only evidence of his election relied on by petitioner is that he was so notified by the secretary of the society; and the secretary, as well as the president and six other members of the society, swear that the secretary was in error when he advised relator of his election. As soon as the error was discovered, the society, at least sixteen members thereof, proceeded to correct the mistake made by its secretary and president, by calling for a special meeting. Whatever may have been the procedure at the special meeting, if that is material in the determination of the question raised, the election was found to have been irregular; and the statement of the secretary that the society voted to reconsider its former action and to rescind the election, in view of the facts and circumstances disclosed, did not amount to an admission that petitioner had been regularly elected; but that was probably the particular method pursued to correct the mistake made by the president and secretary at the former meeting.

Relator advances the proposition that the society is bound by the representation of its secretary, on the theory of agency; that it is bound by the acts of its agent acting within the scope of his authority. There is no allegation of agency, nor facts pleaded to support the present contention of counsel. Relator simply says that he was advised of his election by the secretary. What is the scope of the authority of the secretary of a medical society? While the pleadings do not disclose whether the society is a corporation or a voluntary association, the briefs of counsel for both parties proceed on the theory that it is a voluntary association and we assume that it is conceded that such is the fact. Such associations not being a legal entity, the authority of its officers is necessarily limited, and is generally determinable from its articles of association or constitution, and its by-laws. 5 C. J. 1349. See, also, 25 Am. & Eng. Enc. Law, 1139; 5 R. C. L. 65; I Mechem on Agency, secs. 187, 1389. Besides, it would be unreasonable to contend that the secretary of a society could bind the other members thereof to receive into the society any person he might inform of election therein. We do not think respondent could have been misled to such an extent by the secretary's act.

We are of opinion that petitioner has not been deprived of any vested rights by the respondent's acts complained of. The writ prayed for will, therefore, be denied.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, Huntington - Editor-in-Chief
WALTER E. VEST, Huntington
C. A. RAY, Charleston
HARRY M. HALL, Wheeling
} Associate Editors

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

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Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

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SYPHILIS

This issue of the Journal largely concerns syphilis. The longer we practice medicine and surgery, the more do we come to hate this king of diseases. There is actually something dreadful about it. We are at loss to compare it to something that will adequately describe it. The octopus might seem, to the less observing, to be its best insignia, but to this writer it is something far more terrible and defying. The polished villain in a good play is more to the point—capable of murder, robbery, theft, ingratitude, punishing the innocent, and yet with all so suave, so polished, so altogether confident and well poised, it is found among the elect in all walks of life—now in the presence of a great poet; now in the company of kings and queens; now mingling with the poor and lowly, only later to consort with the most powerful of mankind. Small wonder then that it is after all the arch enemy of us all. Say an Aladdin could rub his lamp tonight and wish that syphilis and its sequelae would be

banished from all the world. You and I know what little would be left. Lately we have felt a note of pessimism among talkers on the subject. We heard one the other night who seemed to have lost much of his enthusiasm for arsenic. Another seems to believe not at all in the Wasserman test. Someone else believes it takes so many salvarsan treatments it is hopeless to try. We believe syphilis is being well handled. Progress is wonderful and as gratifying as anywhere else in medicine. It is true we ought to have some quick, easy way to diagnose it other than the "dark field," which is still essentially to us a dark field, yet it will come. So let us gird up our loins and determine that in West Virginia, at least, we eliminate this scourge.—Harry M. Hall.

INTENSIVE STUDY UPON SYPHILIS

A large amount of space has of late been devoted to the subject of syphilis, in all of the Journals which come under the observation of the editor. We are inclined to think that the present interest in this disease is but one of the sequelae of the world war.

At the time of the examination of the men drafted, astounding conditions were revealed regarding the physical fitness of the young men of our land. Not the least astounding of these revelations was the prevalence of syphilis in its various masquerades.

Previously this was probably not given the thought by our profession which the draft showed to be an imperative necessity. The opportunities afforded medical men to observe the many and diversified manifestations of the disease upon large numbers of young men, probably had never before presented themselves. Then again the laymen had never known just what a curse was among them. Since they have become awakened to the dangers of syphilis, both present and future, they are demanding treatment which will cure.

Be the causes of this awakening what they may, the fact is that more attention and effort is at present being given to the diagnosis and treatment of Lues than ever before. Out of this is coming advance in the therapy of syphilis. We are discovering that our most grievous error has been insufficient treatment, even though a few doses of the newer remedies apparently produce marvelous therapeutic results.

A number of papers have come into our hands dealing with various aspects of this disease. They have been held until a sufficient number were at hand to publish in a single issue of our Journal. It is to be hoped that you will carefully read all of them. They show that the men in West Virginia are wide awake and in line with the best in dealing with this malady.

CITY HEALTH DEPARTMENTS

As physicians of a comparatively young state with its cities growing rapidly and the health departments of these cities organizations which, like Topsy, have "just growed," we should stop and take stock, as it were.

The sooner the people of our cities are awakened to just what the "Health Department" is and what it means to the city, the great-

er will be the reward in increased health for the individual citizens. It is ventured that this department of the various cities of West Virginia needs reorganization. Too many duties are delegated to these departments. The only way this can be brought about is by an education of the laity along the lines of health and sanitation.

The following editorial from the Wheeling News for November ninth gives food for thought in this line:

"THE CITY HEALTH DEPARTMENT

"What seems to be a tempest in a teapot has been started by the failue of the City Health department to be represented, and to attend to the needs of firemen who were overcome by smoke and the fumes of the fire in the Davis, Burkham and Tyler building. Some persons seem to think it is the duty of the Health Officer to be present at every fire to cover the remote possibility of firemen being hurt or overcome by smoke. While the failure to give prompt relief to any fireman injured in the performance of his duty would be lamentable, it is hardly to be expected that the City Health Commissioner can attend every fire, and ride on the fire truck, so to speak. His duty is of an entirely different character.

"Properly speaking, the City Health Commissioner has to look after the health of the community, and not to protect city employees against accidents. He has a very wide range of important duties to perform having to do with the maintenance of health conditions, sanitation, the prevention of contagious and infectious diseases, the elimination of disease centers, and the general protection of our citizenship against sickness, and the causes of sickness. It goes without saying that our City Health Commissioner cannot keep himself ready to respond with a rush to every fire alarm.

"On the other hand, there ought to be, and The News believes there is an authority in the City Government to take care of firemen injured or disabled in the line of their work. Either the City Manager, the Chief of Police, or the Fire Chief himself ought to have the authority to summon or commandeer, if necessary, any needed medical or surgical aid, and any needed hospital relief. It appears that messages alleged to have been sent to the Health Officer concerning the needs of the firemen were not delivered.

"Commissioner McLain knew nothing of the fact that several firemen were overcome, until late in the afternoon following the fire. No call reached him personally, and the complaint, so far as that alleged fact is concerned, was not at all justified. If such a call had reached him, there is no doubt he would promptly have responded, not as a matter of public duty as City Health Commissioner, but as a matter of humanity and as a surgeon.

"However, it ought not to be assumed that the City Health Commissioner's personal duty is to act, either as a physician or surgeon for city employees. His proper work is of an entirely different kind."

MISUNDERSTANDING

There seems to be a very grave misunderstanding in the minds of some of our members as to just what the Council of the State Asso-

cation and the House of Delegates meant by the employment of an Executive Secretary for our organization.

For several years it has been apparent to those attending the annual meetings and especially to the various presidents and secretaries that the business side of our organization had reached such proportions that it was too much to expect any physician to give the time necessary to the work and practice his profession. The actual clerical work is far greater than one suspects.

We may say what we will, there is a business side to our profession. No man in the State Association has higher ethical ideals than has the editor. He is a physician, a general practitioner, who thinks that the profession of medicine is the greatest of them all. He is no business man.

The business side of the Journal alone has become quite a good sized job. To try to secure advertising, to try to hold it (with very little encouragement from the members), to make up the advertising pages bearing in mind the space for the advertisers (preferred space, run of Journal, etc.), is quite a day's work. You can not say, "Why just give them the ad and if they don't like it, take it out." That would keep your advertising pages full just one issue. If it were not for the advertisers you could not have the Journal. It costs three dollars per year, this year and last, to furnish the Journal to each member who paid TWO. The deficit and the editor's salary were made up by advertising.

The business affairs of the association plainly needed a full-time man. Since this is so, it seemed that a layman was to be desired for these duties.

An idea seems to exist that he is also to be editor of the Journal of the State Association. This is an error. He is not to be editor so far as the scientific portion of the publication is concerned. The Council did not and has not so designated him. The Council did select the following editorial staff for next year: Jas. R. Bloss, editor; C. A. Ray, Charleston, Harry M. Hall, Wheeling, Walter E. Vest, Huntington, assistant editors. It is to be hoped this will set our members right in this respect.

Those State Associations which have employed full-time lay executive secretaries have found it satistory to the fullest extent. It is to be understood, of course, that the individual members of these associations have put their shoulders to the wheel and boosted.

Let us hope that the physicians of West Virginia will be equally loyal to our Council and House of Delegates.

THE ELECTION OF NEW MEMBERS

It has occurred to us, sometimes, that the election of new members to the local societies is not given the thought which it should command.

Membership in our medical society carries with it some very important obligations. These are not only upon the applicant, but the society as well assumes some marked responsibilities. Among other things it means that the society regards the new member as being honorable, upright, and to be of reasonable ability and recommends him to

the people by electing him to membership.

In this issue of the Journal is printed a judgment of Judge Miller of Monongalia county upon a writ of mandamus to compel the county medical society to accept a man's membership.

This should be read carefully. It shows that membership is a thing more to be desired than is commonly thought. It shows also the care which should be exercised in the voting upon applications for membership.

HOLIDAY GREETINGS

The editor feels himself fortunate in one thing, by virtue of the trust which the association has given him, and that is the opportunity afforded each year to greet you at the holiday season.

During the past eight years the membership of the State Association has come to be a very personal matter to me. The names upon our roster have come to mean personal acquaintances. Possibly the members do not realize just how this feeling has grown and what it means to me.

This year has not been any exception in increasing the spirit of friendship I bear to my fellow members. I only trust that in some small measure I have been able to inoculate you with the same germ.

We have had a successful year in our association. We are but in the threshold of still greater things as an organization.

To each of you I extend my best wishes for a Merry Christmas and may the New Year be the very best and happiest of your lives.

COUNTY SOCIETY REPORTS

Nov. 17, 1924.

Ed. West Va. Medical Journal,

Dear Sir:

The Barbour - Randolph - Tucker County Medical Society met in the Y. M. C. A. building, Elkins, Nov. 15th, 1 p. m., the following members being present: Drs. Wilson, Hall, Groomes, B. I. Golden, Magill, S. G. Moore, Perry, and Irons, Dr. Hall presiding. Minutes of previous meeting read as reported in Journal and approved. A letter from the Maternal Welfare Joint Committee was read. The letter was ordered to be referred to the program committee for consideration of suggestions made in request of the Welfare Committee.

A letter from Colonel S. Mervin Mans, of Medical Intelligence Bureau, Hot Springs National Park, Arkansas, was read. No action deemed necessary.

Dr. S. G. Moore reported a case of facial paralysis verbally. The case had been under observation of Dr. Moore for about six weeks. He had used X-Ray but so far had been unable to locate the cause. Thinking that possibly diseased teeth might have been the cause, he had two teeth extracted, but did not find the cause. He is now watching the tonsils for a possible foci of infection, but so far no cause of sufficient definiteness has been located. This case was discussed by Drs. Magill, B. I. Golden and Groomes.

The president asked Dr. Moore to keep the case record and report further on the case at the next meeting.

Dr. B. I. Golden read a well prepared and excellent paper on Septicemia. In this paper Dr. Golden

gave us the history of the search for the cause of this once most prevalent complication in obstetrical practice, but which now is much less frequent since the cause has been definitely determined and the means of prevention so well defined. The most interesting part of the paper, from a practical point, was his clinical report of his experience in treating cases with use of Gentian Violet.

Dr. Golden has promised to prepare the paper for the Journal which we hope to have soon.

Dr. M. A. Magill gave a very interesting and instructive talk on "Present Possibilities of Cure of T. B. and Ultimate Eradication of T. B." Dr. Magill said for years he had closely watched the proposed means advocated for cure of this most destructive disease but with no faith in good to be obtained till quite recently since which he is now convinced that possibilities are quite possible. Heretofore various methods have had their advocates but the best of these were sunlight, pure air, proper food and care of person, but now Dr. Rosin has experimented with the use of venous injections of solutions of calcium chloride with very encouraging results.

Dr. Calmette has procured a vaccine from T. B. cultures which is to be and is used very successfully on the new born as a preventive. This promises to be as great a boon to humanity as was vaccine for smallpox.

The talk was very instructive and we hope Dr. Magill will prepare the talk in writing for the Journal for which I have already requested.

Our society is greatly perturbed by the action of the House of Delegates in adding $5.00 to annual dues and further in employing a layman as secretary and to take charge of the Journal. We have had great difficulty in collecting $6.00 from most of our members. How shall we proceed in collecting $11.00 and with what success?

We are certainly inconsistent when we delegate to a layman what should be the function of the physician. We complain of licensing those who are in fact only laymen (unqualified to treat disease) to practice, and we by action and sanction of the State Medical Society delegate the duties of our profession to a layman. Surely we have lost our view of consistency. What qualifications has a lay man editing a medical journal? To our mind he would be equally as well prepared for practicing "the healing art" as editing a medical journal.

The annual election of officers resulted as follows, all for one year except censor, who holds for three years: President, Dr. B. I. Golden; Vice-presidents, Dr. J. L. Miller and Dr. C. B. Williams; Secretary-treasurer, Dr. J. C. Irons; Censor, Dr. O. L. Perry.

Society then adjourned to meet in Elkins in January 1925.

J. C. IRONS, Secy.

October Ninth 1924

A regular meeting of the Cabell County Medical Society was held at the Hotel Frederick on the evening of October 9th, 1924, the President Dr. T. W. Moore presiding.

The minutes of the previous meeting were approved as read.

The Board of Censors having reported favorably on the names of Dr. C. A. Latham and Dr. A. D. Kessler, the society voted them

unanimously elected to membership.

The names of Dr. C. A. Holzer and Dr. L. Bean, of Gallipolis, O., were presented for membership. After a lengthy discussion as to their eligibility for membership, not being residents of Cabell County, by vote of the society their names were referred to the Board of Censors for decision on the matter.

Dr. H. L. Robertson, of Charleston, W. Va., was the guest of the society and presented a very interesting paper on "The Diagnosis and Clinical Aspects of Thyroid Diseases." The paper was excellently presented, timely and full of good thoughts about this complex disease. The paper was discussed by Drs. Vest and Biern, Dr. Robertson closing.

The secretary read a copy of a recent coroner's record calling attention to the irregular conduct of residents of 1326 Fourth avenue, in the matter of disposing of the dead body of a certain illegitimate child. The secretary moved that a committee of three be appointed to investigate this report. After much discussion the vote revealed the motion carried by a vote of two to one, two members voting for it, one against. Several members refused to serve on this committee after appointment by the chair, the final committee being Dr. Biern, chairman, Dr. Cronin and Dr. Hume.

The secretary tendered his resignation.

Dr. T. W. Moore asked for privilege of appointing a committee to revise the Constitution and By-laws volunteering to serve on the committee. This privilege was granted the president appointing the secretary to assist him.

The secretary was instructed to send flowers to Dr. Swezey at periodic intervals during his illness.

There being no further business, the meeting adjourned.

OSCAR B. BIERN, M. D., Secy.

The regular monthly meeting of the Marion County Medical Society, preceeded by the usual dinner, was held in the dining room of the Fairmont Y.M.C.A. building on October 28th.

Attendance was unusually large.

The feature of the evening was an address on the subject of "Acute Bone Infection" by one of our most eminent West Virginia surgeons, Dr. Frank L. Hupp of Wheeling. The speaker acquitted himself in his well known eloquent, not to say, elegant style, and gave us many good things over which to ponder.

Further feature was the reports on questionaire lately sent to the various candidates of our district for election to the state legislature.

The questions were relative to their attitude regarding the educational requirements of those making application for liscense to practice medicine in this state.

Of eight letters forwarded only six replies had been received, though the time had been ample. Of the six replies five came through with definite answers stating their position, while one only "straddled" the issue.

MEETING OF McDOWELL COUNTY MEDICAL SOCIETY

October 8th, 1924.

The regular meeting of the McDowell County Medical Society was held at Welch Hospital No. 1, on October 8th, 1024 at 8:30 P. M.

The meeting was called to order by the President, Dr. H. G. Camper. Dr. Livingston acted as Secretary pro tem in the absence of the regular Secretary, Dr. Fred B. Quincy.

Present: Dr. Cox, Dr. Anderson, Dr. Sameth, Dr. Hughes, Dr. Stevens, Dr. Camper, Dr. Lovely, Dr. Rutherford, Dr. Kreiner, Dr. Livingston.

The minutes of the last meeting were read and approved without correction.

CLLINICAL CASES

Dr. Livingston reported a case of convulsions due to a fractured base of the skull relieved by spinal puncture. Dr. Rutherford reported a case of depressed fracture of the vault of the skull which was not relieved by spinal puncture but was subjected to surgical operation.

Paper: Dr. Rutherford on "Puerpal Eclampsia."

The subject was handled in a most masterly manner and brought out many important points worthy of the serious consideration of the practitioner. It was an excellently prepared paper—reflecting the results of the pains-taking review of the literature together with that of a careful analysis of the cases in Welch Hospital No. 1. It was the presentation of a subject by a surgical practitioner from which we could only say that the speaker was well posted in theory and statistics. Those who followed him closely could go step by step from the realm of theory and experimental research to the rock-bottom of application. His resume of the literature was most interesting and enlightening. He brought to our minds that lastest theory exploded as to the cause of puerpal eclampsia, i. e., that it was due to an intravascular hemolysis of the mother and foetus blood due to a break in the placental circulation.

Dr. Rutherford stressed the importance of keen observation and prevention of the disease as more important than the treatment after it has developed. To quote the writer, "Be on the alert when a pregnant woman comes to you complaining of minor symptoms or slight disturbance of vision."

It is not always necessary to find albumin in the urine. The importance of frequent blood pressure readings—especially the systolic readings—was stressed upon. In the view of the writer, only by careful taking of blood pressure can one detect the extreme early symptoms of eclampsia.

As to treatment, Dr. Rutherford favored and stressed the importance of conservatism in preference to the policy of radicalism in the treatment of eclampsia. "Control the convulsions first, empty uterus last." He also stressed the importance of routine venesection with the intravenous use of a 5% Glucose solution. He favored the Glucose in preference to the normal salt as it acted as a food and a diuretic whereas salt solution acted as an irritant.

He stressed the importance of the use of narcotics and sedatives to control the convulsions. He did not

favor the use of hot packs or Veratrum Viride. He warned against the use of chloroform in eclamptics, but favored ether as the anesthetic of choice.

I keenly regret that it is not within my power to write more with reference to this paper so ably presented, but feel that I voice the sentiment of the members who were present in saying it was one of the best papers ever presented at any of the meetings of the Medical Society.

Dr. Stevens opened the discussion by thanking Dr. Rutherford for his valuable paper. Dr. Stevens brought out the important point of watching for less pronounced symptoms—such as headache and eye strain as a fore-warning of eclampsia. It was his opinion that the patients who develop eclampsia were those who were neglected during their prepartum condition.

Dr. Cox stressed the importance of non-protein diet, the advisability of keeping the patient as quiet as possible without unnecessary manipulation and also in full accord with the policy of conservatism rather than radicalism.

Dr. Camper praised the use of intravenous Glucose and brought up the point of the convulsions due to intracranial pressure, and that in his opinion spinal puncture should come under the treatment of eclampsia. He favored the use of narcotics and was in full accord with the policy of conservatism rather than radicalism.

Dr. Anderson felt that by proper prepartum care, a large number of eclampsias could be prevented. He follows the routine of putting his patients on interval doses of calomel. The use of Basham's Mixture and a simple uterine tonic. He does not believe in the use of narcotics to any extent, but believes in the use of ether to control convulsions, never use chloroform.

Dr. Kreiner stressed the importance of treating the patient first and emptying the uterus last.

Dr. Livingston stressed the importance of a high carbohydrate diet.

The ready discussion which followed overshadowed my ability to record it all as a record in the minutes of this meeting.

MISCELLANEOUS BUSINESS

On motion of Dr. J. Howard Anderson duly seconded by Dr. A. G. Rutherford, the President was authorized to send a letter signed by the President and Secretary (pro tem), to Dr. Quincy from the McDowell County Medical Society to the Knox County Medical Society, (Tenn.)

By invitation by Dr. A. G. Rutherford, the Society voted to have a banquet the second Wednesday in December—the regular meeting of the Society.

There being no further business to claim our attention, the meeting adjourned at 10:45 P. M.

J. Livingston, Secy. (pro tem).

Morgantown, W. Va.,
November 20th, 1924.

Dr. James R. Bloss,
Editor W. Va. Medical Journal,
Huntington, W. Va.

Dear Doctor Bloss:

It seems that no one has ever reported the meeting of the Monongalia County Medical Society in Fairmont in October. The Monongalia County Medical Society put on a program at a joint meeting of the Marion and Monongalia County

Societies. The scientific program was given by Dr. T. Jud McBee and Dr. Herbert V. King. Both papers were well received. Dr. S. S. Wade was on the program also, but he had recently been in an automobile wreck and was unable to render his part.

There were twenty-five of the Morgantown doctors present. Each took his wife along. The wives were as well pleased with the night's entertainment as their husbands. The Fairmont doctors made as elaborate preparations for the evening's entertainment as if the State Association were to be there. The "Big Eat" was fully up to standard set by the State Association. When the banquet was over the Fairmont wives took the Morgantown wives to the club house of the Doctors and Dentists and entertained them till after the scientific program was over, then all went to the club house and "Danced all night till broad daylight, and went home with their wives in the morning."

The Fairmont doctors spared no expense or pains to show the Morgantown folks a fine time. The Morgantown people greatly appreciated the fine spirit shown by the up-river people, and they are hoping to reciprocate in a similar manner shortly.

At this meeting a movement was made to have a joint meeting of Harrison, Marion and Monongalia Counties Medical Societies. This has not materialized so far.

Dr. Yount of Silver's Clinic in Pittsburgh entertained our society at its last meeting. His talk was eminently entertaining and instructive.

I see Dr. Hall asks me to copy the report of the thirteen children and a mother riding on one ticket. He doesn't seem to know that I am the identical chap that wrote thirteen birth certificates, and therefore it would be unnecessary repetition.

Dr. Luther S. Brock died suddenly on November 10. He was 79 years old. He was the oldest practitioner in Monongalia County. He was the most highly respected man in the profession in this part of the state. He was an ex-president of the County Society, and of the State Association. He formerly was a member of the State Board of Health. He had held many posts of honor and responsibility and discharged them all with fidelity and ability. He was rarely absent from the County and State Medical meetings. He graduated from Jefferson in 1872, and had practiced his profession continuously for more than half a century. "Well done, thou good and faithful servant."

Yours fraternally,
C. H. Maxwell, Reporter.

OHIO COUNTY SOCIETY REPORTS

On October 17th the regular meeting of the Ohio County Medical Society was held in the Y. M. C. A. Auditorium, and was addressed by Dr. Sidney A. Chalfant of Pittsburgh, Pa., his subject being "Cancer of the Fundus of the Uterus,"—discussions by Dr. J. Schwinn and Dr. W. S. Fulton.

The doctor has an easy, graceful, informal manner of talking, although he is so sure of his statistics he sometimes falls into the all too common error of lowering his voice so that you do not hear him.

Speakers are partly to blame for this, but the biggest share of it is on the audience. We are a bigger sinner in this respect, and we have tried to analyse our own motives with but poor results. If we were a good cartoonist we could make one of the average collection of doctors at a Medical Meeting. At first glance you would take it for a trial of bootleggers in a United States Court, and the audience were culprits hoping and praying they would not be called, and a little afraid of getting too near the Judge on general principles. The seats near the aisle are at a premium, and they are occupied clear back to the exit. We are generally two-thirds back. Is it we are nursing the delusion the usher will call us out for a case. Hardly. If it were, the speaker would probably understand if we left even if we were up front. No. It is simply a strange psychology. Perhaps, we can pull something out and read it if we don't like the talker. Most speakers we have heard in the last few years were not of that kind. In every case they either told you something new or reminded you of something you had forgotten. We are going to try to reform.

To get back to Dr. Chalfant. He believes you should do a total hysterectomy if you are at all suspicious. In some cases by the vaginal route if you have rotund abdomen. He relies on uterine scrapings to an extent, but believes women with irregular bleeding are to be regarded as suspicious in any event. He sends a piece of tissue down to the pathologist while operating, but admits he is half way through his operation frequently before report comes up, having gone ahead on the gross appearance. Believes it is a poor prognosis always when you see the process shining through the peritoneum and adjacent structures. Wants operation first and radium afterwards in cancer of the fundus. Radium first in cervix cases, although he still operates first here too, in selected cases. Finds few cervical cancers in women who have not borne children—not so in fundus. No radium in those with acute processes. In fact he is not keen about its use in fundus at all as compared with cervix. Uses the cautery quite a little. Does not believe in Wertheimer operation—too drastic. Just as long a life with radium and lesser procedures.

Dr. Schwinn made a division of surgeons, said men like Chalfant, Mayos, Devers et al should use knife, while for men like himself perhaps radium is better. At this point we felt like getting up and interrupting him with a talk on malignant modesty, and its cure by some kind of metal cautery. Dr. Schwinn's record around here makes him the peer of anybody, and he ought to know by this time we all feel that way about it.

Dr. Fulton closed the discussion. He showed signs of a little staining with malignant modesty too. He remarked the wording of the doctor's paper showed he no longer felt that cancer of the cervix was a general subject, save for the Radium Specialist. He believed that anything calling for a Hysterectomy meant total with no cervix remaining—laid stress on preference for abdominal route. Spoke against too many attempts at obtaining scrapings as inflaming and increasing process. He felt that if a woman stained with a few drops of

blood now and then, and a year or two had passed since menopause you were pretty sure to find a cancer in fundus. We understood him to say he was more suspicious of continual staining of a few drops of blood than a bigger flow at rare intervals.

Dr. Chalfant closed the evening with a graceful rejoinder to the complimentary remarks he had received. He wanted to be placed with the everyday surgeon distracted with battles and defeats, and having his share of discouragements. He left a good impression. and his modesty was of the benign type that does not call for radical measures. You could see the half smile on his face when he heard Schwinn and Fulton get up and in one breath plead their limited experience, and in the next give illuminating talks on his subjest as fruitful to the audience as was his own discourse, wise and able as it undoubtedly was.

On October 31st, Dr. Harvey G. Beck, of Baltimore, Md., addressed the Ohio County Society, his subject being "The Importance of Urologic Diagnosis in Internal Medicine." One thing can be said about the medical profession, and that is if they are seized with an idea they generally are gripped rather hard. Just now they are at the zero hour of being told to be more careful about having more urological examinations. Probably they require so much repetition, but if they do it is not to their credit. We can remember the Huntington Meeting of the State Association had a good bit of information on this subject. Dr. Beck took the matter up also. His was largely statistics of what was found in a bloc of cases presenting both obscure and half veiled symptoms. The upshot of it all was to be sure you have the uro-genital tract eliminated before operating. Many of his cases had had appendectomies and currettements with no relief. He thinks blood in the urine always needs watching, irrespective of amount.

Most of his lectrue, however, was in warning his hearers to always be on alert for uro-genital disease.

Drs. Harris and Roberts discussed the paper. They were both given to the complimentary type of after talks. We heard Roberts give an excellent paper on this subject two years ago with very good slides. In fact it could be favorably compared with the one given this evening, yet he offered no criticism, nor no new lines of talk. We believe speakers like good straight discussions even if it differs with their paper, while they well know anyone can be complimented.

The evenings in any Medical Society that are best remembered are those when the battle raged. Criticism is no reflection on the speaker, it merely shows he made an impression.

On November 7th, we had with us Dr. Gabriel Tucker, Bronchoscopic Clinic University Hospital, Philadelphia, Pa., his subject being "Bronchoscopic and Esophagoscopic Cases of General Interest," the lecture being demonstrated with slides and moving pictures.

A good sized audience greated him including nurses from both hospitals. Some Ear, Nose and Throat men were also to be found in the audience, lured there by a talk on their favorite subject. These specialists never win the medal for attendance, and some of them

never come at all. Doubtless it is trying for a Bronchoscopic Specialist to listen to a talk on Pathology, but to the general practitioner, of whom there are several left, moving pictures of both specialties appear strikingly similar.

A few words from Dr. Tucker is sufficient to mark him as a man who is very much at home in his chosen field—no fumbling for words or ideas. He goes straight ahead and quickly covers his ground. Like all the other Bronchoscopists he warns the general practitioner to be wary of continuous irritating coughs with copious expectoration. Warns, against abcess developing after tonsillectomies, says if you are not having this complication you are either not making them out, or else your turn of "hard luck" has not yet arrived. He states his field is just as useful in diagnosis and treatment as in removing foreign bodies, says if your swallowed or aspirated foreign body is not found in twenty-four hours or so have patient X-rayed, and when you do it, have the body clear to the pelvis done as well. To prove this last he showed pictures of a woman who had a pin in the bronchus and a needle which penetrated gut making a laparotomy necessary. She recovered.

He also showed a needle removed from a patient who partook of the celebrated HOT DOG. While the needle was abstracted, how it found its way into the HOT DOG was not. The doctor showed one slide after another of foreign bodies in separate collections, with appropriate markings as COINS, BONES, MEATS, etc. They looked like collections out of the Carnegie Museum. The common "jacks" of school children are the most formidable foreign bodies, and are often fatal.

His slides were first-class, as were his films for the moving picture machine . He showed a young boy like Tom Sawyer in size come nonchalantly in, take off his hat, get on the table, have a Bronchoscopic Examination, get up, sigh, and as happily walk out. We don't know whether the censor deleted part of this or whether the bronchoscopic examinations we saw were a little rougher than usual, but we are still puzzled about something or other. It may have been a wonderful boy. The "whole evening" was in the first-class in every respect, and showed specialism at is very best. Doctors Fawcett and Hoge gave "complimentary discussions."

STATE AND GENERAL NEWS

McDOWELL COUNTY NEWS

Dr. H. G. Camper,Welch, West Virginia, member of the State Board of Health, is in Charleston, West Virginia, attending a meeting of the State Board of Health.

Dr. Albert G. Rutherford, Chief Surgeon Welch Hospital No. 1, Welch, West Virginia, has just returned from New York and Philadelphia where he has been attending some of the clinics and doing special work.

KANAWHA COUNTY NEWS

E. BENNETH HENSON, Reporter

Dr. J. E. Cannaday was called to his old home in Virginia October 24th, on account of the death of his mother.

Dr. G. C. Schoolfield visited the oil fields in Kentucky recently to look over some of his holdings.

Dr. Fred Gott, has recently

located in Charleston, coming here from St. Albans, where he has practiced for several years.

Dr. E. R. Hayes of Chelyan, W. Va. spent part of his vacation watching the World Series in Washington.

Messages coming from Dr. J. W. Moore, who until last year was one of Charleston's most honored physicians, and who gave up his lucrative practice to enter the missionary field of China, tells of his hospital in China, caring for the wounded soldiers of the fighting forces in that Province. He seems to be in the middle of the fight. The past summer he was seriously ill with pneumonia.

Dr. Maury Anderson, who for years has been located at Ward, W. Va. has moved to Morrisvale, W. Va.

Dr. N. G. Champe, formerly of Montgomery, W.Va., is now located at Sharples, W. Va.

Dr. J. W. Smith of Edwight, W. Va. spent last month doing postgraduate work in the Eastern clinics.

Dr. Max Goldman, Clendenin, W. Va., has recovered from a recent illness and has resumed practice.

The Charleston General Hospital has moved into its new home situated on Elmwood Avenue at Brooks Street. The new location is just a few blocks from the business district, whereas their location for the past twenty-five years has been on a hill overlooking the city.

The St. Francis Hospital will soon open a large wing to its hispital which will practically double their present capacity.

The Kanawha Valley Hospital has about finished their new nurses home.

MARION COUNTY NEWS

CLAUDE L. HOLLAND, Reporter

Dr. and Mrs. W. J. Ballard and children motored to West Union to visit friends.

Dr. and Mrs. Carter S. Fleming traveled by automobile to New York City, where Dr. Fleming attended the congress of the American College of Surgeons. Dr. Fleming is a member of this body. From New York City they went to Rochester to visit the Mayo Brothers clinic. They will be gone for two or three weeks.

Dr. Carl J. Carter, son of Mr. and Mrs. Eldridge Carter, has located here for the practice of his profession. Dr. Carter will be associated with Dr. Carter S. Fleming in the practice of his specialties.

Dr. Carter is well known here. He recently completed his hospital work in the Memorial hospital in Richmond, Va. Fairmont will welcome this young doctor.

Dr. and Mrs. C. M. Ramage motored to New York City, where the former attended the congress of the American College of Surgeons. They also saw the football game between the W. V. U. and Centre College.

Dr. and Mrs. L. S. Smith and daughters, Zethial, Mary and Margaret and Robert Gaskins of Ford street left for a several weeks motoring trip to Niagara Falls and points in Canada. They expect to visit Dr. Smith's brothers in Boston, Mass. and Vermont before returning home.

Dr. Smith is the company doctor at Monongah, and is employed here With Dr. James A. Reidy. Dr. Reidy has just returned from a vacation trip to Atlantic City and is

looking after Dr. Smith's practice during the latter's absence.

Dr. and Mrs. Leroy D. Howard returned from a several weeks' stay in the East. Dr. Howard was in Philadelphia for several weeks taking post-graduate work under Dr. J. A. Deever in the German Hospital and was joined there 10 days ago by Mrs. Howard.

OHIO COUNTY NEWS NOTES

HARRY M. HALL, Reporter

Dr. A. L. Jones has returned from Canada. He has, like Dr. Hupp, photographs of what he did. It is the better way. Physicians are a "hard boiled" crowd of "doubting Thomases." You know how it is when you have had some wonderful results and take your achievement to your best friend among the profession, and he says, Are you sure it was this or that? Could it not be this? etc. Jones shot a deer and a moose which is, as we understand it, all our Canadian friends will allow one man. He went up with several "old timers," and like the tenderfoot in a poker game, he has his moose on the third day, which again reminds us that the new young doctor also often cures at once your old ulcer case. Really a funny world.

Dr. D. A. MacGregor and family have returned from Baltimore and the East, where they were on a short visit.

Doctors Reed, Drinkhard and Tomassene attended the American College of Surgeons at New York City. Dr. Reed states that it was a very well worth while meeting, with an abundance of opportunities. They were well entertained. Dr. Reed especially liked Dr. Sayle whose treatment of Spastic Paralysis by Sympathectomy (we believe this is correct) was well received.

Without being in the least concerned personally we note a certain amount of apathy in regard to this sterling organization. We presume some of this may be due to disappointed candidates, although we have seen few of these—some of it may be due to those who feel that members in may not be as well qualified as they. But did they try to get in? We believe an organization like this is bound to commit flagrant errors, since it is human. Be that as it may the antagonism remains.

Dr. J. J. Osborn spent his vacation on Mobile Bay. He states it is a great place with wonderful scenery. We are relieved to find one doctor "going south" on his vacation.

Dr. Frank LeMoyne Hupp will deliver a paper at the coming Southern Medical meeting at New Orleans on Intraperitoneal Rupture of the Urinary Bladder.

Dr. C. D. Wilkins is at present confined to the Ohio Valley General Hospital seriously ill. The Doctor is superintendent of that admirable institution. The Doctor is somewhat of the Coolidge type of man, was born near the home of the President, and raised under the same Puritan methods. His conduct of the hospital has been along the lines of the Coolidge idea of reduction of budget and taxes, and the hospital has not only "broken even" but had a small balance to spare. Anyone who can make any hospital anywhere "break even" is entitled to a good bit of praise. Dr. Thornton is attending him and the report today was that he was improved. We

all wish him a speedy recovery.

Attention is called to the circular letter containing the program of the Ohio County Medical Society for year 1924-25.

To our mind this is a big program and one that reflects credit on those who made it possible. There must be physicians traveling in and out of Wheeling from time to time and others living near by who ought to make it a point to be in the city at the times of these meetings. Moundsville is nearly always represented. There are a lot of annual meetings in big cities with no better speakers, so try and drop in on us now and then. Make yourself known and feel free to enter into the discussion.

St. Mary's Huntington's newest hospital, was presented to the public November 6, when Rt. Rev. John J. Swint, Bishop of the Catholic diocese of Wheeling, blessed the building for the work to which it is now dedicated.

St. Mary's is located at First avenue and Twenty-ninth street, in the remodeled buildings which were formerly the home of St. Edward's Preparatory College. It has accommodations for 75 patients, together with modern provisions for pathological and surgical examination and treatment. It is in charge of a group of Pallatine Sisters.

The hospital is held by the Bishop of Wheeling and was remodeled and generally equipped at the expense of the Bishop, though many of the rooms were furnished by individual gifts.

The private rooms at St. Mary's are especially attractive, being for the most part situated so that the patient has a pleasant outside view. The same attractiveness pertains also to the wards.

Building is Blessed

Bishop Swint, assisted by Monsignor Henry B. Altmeyer and the Rev. Father Hengears of Richwood, blessed the building at 4 o'clock.

At 7 o'clock solemn benediction in the hospital chapel was attended by a sermon by Bishop Swint.

MENU

Fruit Cocktail
Roast Young Turkey, Sage Dressing
Cranberry Jelly
Peas and Carrots in Patty Shells
Mashed Potatoes
Waldorf Salad
Pumpkin Pie
Coffee
Cigars and Cigarettes

TOASTS

Dr. W. C. McGuire, Toastmaster

Invocation—Rt. Rev. J. J. Swint, D. D.

"Hospitals of Today and Yesterday"—Dr. T. W. Moore, president Cabell County Medical Society.

"The Family Doctor — One Important 'Cog' Notwithstanding the Many Isms"—Dr. Frederick A. Fitch.

"The Surgeon's Place in Medicine"—Dr. H. D. Hatfield.

"What a Hospital Means to a City"—Hon. G. A. Northcott, president Huntington Chamber of Commerce.

Benediction—Rt. Rev. J. J. Swint, D. D.

Express Congratulations

Congratulations upon the establishment of St. Mary's hospital and good wishes for its success were expressed in warm measure by members of the Cabell County Medical Society, the president of the chamber of commerce and others at the close of a complimentary dinner

served in the hospital dining room at 8:30 o'clock Oct. 7th. Dr. William C. McGuire was toastmaster and responses were made by Dr. Thomas W. Moore, president of the Cabell County Medical Society, Dr. Frederick A. Fitch, Dr. Henry D. Hatfield, G. A. Northcott, president of the chamber of commerce, Leslie T. Downey, of the Union Mission, Dr. J. A. Guthrie, Dr. James R. Bloss, Dr. W. D. Hereford and Dr. Oscar Biern.

At the close Bishop Swint, before pronouncing the benediction, thanked the doctors and others for their general expressions of good will.

Upon leaving the hall the physicians were presented to Sister Corola, in charge of the group of Pallatine Sisters who are to conduct St. Mary's.

The hospital is now ready for medical patients and will, it is stated be ready for surgical cases on Monday, the latter being possible through the kindness of the Kessler-Hatfield hospital in permitting the use of its sterilizing equipment.

Will Meet Needs of City

In congratulating the church for establishing the new hospital in Huntington, Dr. Moore, as president of the Cabell County Medical Society, expressed the belief that with this institution and the new 80 bed addition to the Kessler-Hatfield, the hospital facilities of Huntington will be brought to such a point as to care for a population of more than 100,000.

"We may," he said, "and doubtless will, build more hospitals for sentimental or other reasons, but what we have will meet the actual needs of the city for a long time to come."

Dr. McGuire stated that St. Mary's hospital will be open to every legitimate practitioner, explaining that for the present the institution will have neither medical staff nor nurse's training school.

Dr. Fitch spoke on "The Family Doctor Still an Important Cog Despite the Many Isms." His effort was marked by a sparkling flow of wit as well as of a modest measure of praise for the family physician.

Dr. Hatfield spoke in glowing terms of the advance of medicine and surgery since the beginning of the nineteenth century. He complimented Bishop Swint, the clergy and the sisters for their establishment of St. Mary's and pledged to it his most hearty support and cooperation.

In welcoming the hospital to the city in behalf of the chamber of commerce, President Northcott commended the hospital in its value to the community and touched, incidentally, on some of the hardships encountered by those who first untook to conduct a hospital in Huntington.

All of the speakers touched on the unprofitable character of the hospital business from a financial standpoint and praised the spirit of the church which brought St. Mary's to Huntington without asking for any assistance save from members of St. Joseph's parish.

In attendance at the dinner were the Rt. Rev. J. J. Swint, D. D., Bishop of Wheeling, the Rt. Rev. Monsignor Henry B. Altmeyer, Rev. Fr. Hengers, of Richwood, Rev. Fr. J. R. Devern, of Logan, Rev. Fr. James Hickie, Dr. H. B. Martin, Dr. O. E. Reynolds, Dr. D. R. Carden, Dr. George M. Lyon, Dr. R. M. Wylie, Dr. J. C. Kessler, Dr. G. L. Howard, Dr. H. D. Hatfield, Dr.

PHILADELPHIA

William C. McGuire, Dr. T. W. Moore, Dr. I. W. Taylor, Dr. F. C. Hodges, Dr. Oscar B. Biern, Dr. G. C. Morrison, Dr. W. Byrd Hunter, Dr. W. H. Deer, Dr. B. L. Hume, Dr. W. N. Rowley, Dr. Fred E. Brammer, Dr. A. R. McKenzie, Leslie T. Downey, Dr. D. J. Cronin, Dr. F. C. Fitch, Dr. A. K. Kessler, Dr. I. C. Hicks, Dr. J. Edward Hubbard, Dr. J. E. Rader, Dr. Guy Yost, Dr. W. F. Beckner, Dr. F. J. Hoitash, Dr. J. J. Hirschman, Dr. C. M. Buckner, Dr. Karl C. Prichard, Dr. C. G. Willis, Dr. E. E. Shaffer, Dr. W. E. Neal, Dr. J. R. Bloss, Dr. J. S. Klumpp, Wiatt Smith, Dr. C. P. S. Ford, Dr. I. W. Mayberry, Dr. M. B. Mayberry, Dr. A. D. Kessler, Dr. J. H. Steenbergen, Dr. C. A. Latham, Dr. J. A. Guthrie, Dr. W. W. Strange, J. H. Long, H. M. Brown, G. A. Northcott, Henry Persun, G. J. Bender, A. M. Foose, J. L. Pulskamp and Judge D. E. Matthews.

MEDICINE AND SURGERY

INTRA ABDOMINAL RUPTURE OF THE INTESTINE FOLLOWING STRANGULATED FEMORAL HERNIA

Abstract of paper read by Dr. Frank LeMoyne Hopp before the Baltimore meeting of the American Surgical Association, and published in the October number of the Annals of Surgery.

After a literary digest in which the author refers to the rareness of this accident, a case report is made of a man who on admission to the hospital presented the picture of one suffering with a strangulated femoral hernia, associated with peritonitis. Incision over the protrusion revealed a gangrenous, open loop of the intestine; and the proximal segment, from which the black loop was separated, was nowhere to be seen in the sac. Free incision through the right rectus exposed the open and retracted proximal end of the terminal ileum, showing pressure necrosis and separation at the point of construction. The abdominal cavity contained fecal matter, free fluid and gas. A segment o fthe ilium, fourteen cm. long was resected and an end to end anastomosis effected with a Murphy button. The resected segment of the gut presented two deep-seated ulcerations, one above the constriction. The patient made an uneventful recovery, passing the button on the thirtieth day.

Reference is made to the opinion expressed by Moynihan, regarding the collapse of these patients, as being due to the overlooking, idstention, and the ulceration of the gut above the block, together with the absorption of the contents, whose bacterial virulence is greatly increased.

Eight cases from the literature are reported, in which this definite pathological entity of ulceration was demonstrated.

In concluding, the writer sounds the warning that searching interrogation of the mocous membrane should be made immediately adjacent to the anastomosis, in order to forestall a potential leakage; that this condition, together with the possibility of an intra abdominal rupture at the point of constriction must enter into the mortality factors of a strangulated hernia.

The text of the paper contains a study of eight cases each with definite ulceration, perforation and generalized peritonitis, following strangulated hernia.

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SUSCEPTIBILITY to diphtheria is at its maximum in infants of about one year of age. Beginning at this time, when probably 90 per cent. of the children are susceptible to diphtheria, immunity slowly but steadily develops, until in adult life, immunity is the rule in the majority.

As age and immunity increase, the amount of diphtheria toxin required to produce active immunity against diphtheria becomes less and less. As the quantity of toxin required is lessened, the possibility of protein reaction occurring, though slight, is increased. While fully recognizing this possibility, biologists generally have feared to lessen the amount of toxin in the established toxin-antitoxin mixture, believing that a lessening of its immunizing value might occur.

Dr. Park and his associates of the Research Laboratory, N. Y. C. Department of Health, have now definitely proven the fallacy of this hypothesis. They have demonstrated that a mixture containing only one-thirtieth of the amount formerly used, is absolutely effective in immunizing, regardless of age. The immunizing value is not lessened for the reason that with a reduction of the amount of toxin, the antitoxin is also reduced, leaving the proportion of free toxin unchanged. In other words, the new formula retains the immunizing value of the old, but reduces the possibility of protein reaction to a minimum.

This improved formula is now available to you under the Squibb label, which insures its reliability. It is marketed by the Squibb Biological Laboratories under the title "DIPHTHERIA TOXIN-ANTITOXIN MIXTURE SQUIBB" (*New Formula*).

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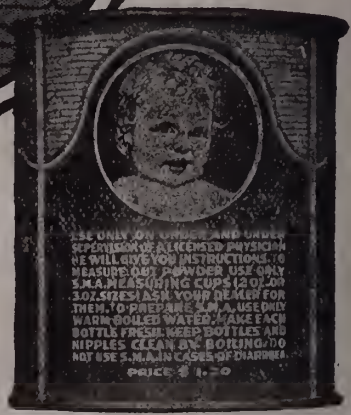

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From W. Va. Med. Jour., Dec. 1923

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THE WEST VIRGINIA

MEDICAL JOURNAL

Published by The West Virginia State Medical Association

VOL. XIX—No. 2. HUNTINGTON, W. VA. FEBRUARY, 1924

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THE WEST VIRGINIA

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CALCREOSE

CREOSOTE IN TUBERCULOSIS

"It is again coming into favor. There seems to be no doubt but that it has a very definite effect in reducing expectoration and in lessening purulency. As a certain amount of the drug is excreted by the bronchial mucous membrane, this may explain, in part, its beneficial effects."—John Guy: Pulmonary Tuberculosis; Its Diagnosis and Treatment, 1923, p. 252.

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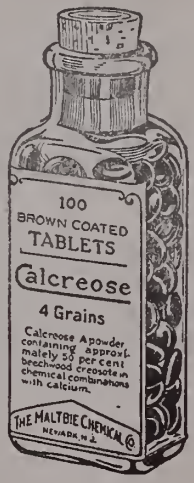

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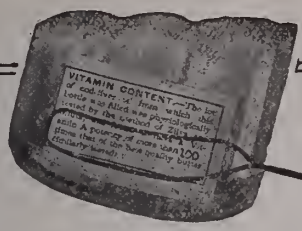

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ANNUAL MEETING, WHEELING, MAY 13, 14, 15.

THE WEST VIRGINIA

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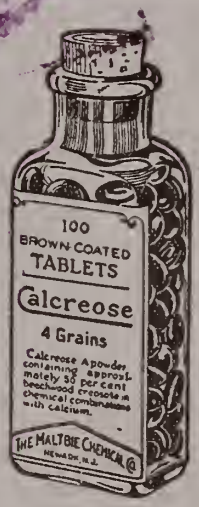

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Cleveland, Ohio

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"Creosote seems to be of value in cases of chronic fibroid disease with copious expectoration, in patients with a secondary infection or with chronic bronchitis, and in some early cases with dyspepsia and intestinal fermentation." R. A. Young: Lancet 1:484 (March 8) 1924.

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The most important factor in the development of a nation is

THE BIRTH AND REARING OF CHILDREN

No food is more important during the first year of life than BREAST MILK.
The best substitute for Breast Milk is Fresh Modified Cow's Milk.
Every baby, whether bottle-fed or breast-fed, should be under the supervision of a physician.

Many physicians have learned—

The value of Mead's Dextri-Maltose in the Modification of Cow's Milk.

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The value of Mead's Cod Liver Oil to protect the infant from rickets.

The value of MEAD'S POLICY.

THE MEAD JOHNSON POLICY—Mead's Infant Diet Materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

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HAY FEVER

WITH Spring Pollens will come the annual recurrence of Hay Fever to those of your patients who suffer from pollen sensitization. In the majority of cases, Hay Fever can either be prevented or improved by treatment if begun before the appearance of the pollens.

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Pollen Allergen Solutions Squibb

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What is S. M. A.?

S. M. A. is an adaptation to breast milk which resembles breast milk both physically and chemically.

S. M. A. in addition to giving excellent nutritional results in most cases, also prevents nutritional disturbances such as rickets and spasmophilia.

S. M. A. requires no modification or change for normal infants. As the infant grows older the quantity is merely increased.

S. M. A. requires only the addition of boiled water to prepare.

(Orange juice, of course, should be given the infant fed on S. M. A., just as it is the present practice to give it to breast-fed infants.)

Why was S. M. A. developed?

Because there is a real need for an adaptation to breast milk which will give satisfactory nutritional results in the great majority of cases, which includes the preventive factors, and which is, at the same time, so simple to prepare that the physician can rely on the mother to follow his directions accurately.

How is it possible to feed S. M. A. to infants from birth to twelve months of age without modification or change?

The answer to this question sounds the keynote of the success which thousands of physicians are having with S. M. A. It is not necessary to modify S. M. A., **for the same reason that it is not necessary to modify breast milk:**—for S. M. A. resembles breast milk not only in its protein, carbohydrate and salt content, but also **in the character of the fat.** Since the very young infant can tolerate the fat, as well as the other essential constituents in S. M. A., it is possible to give this food in **the same strength,** to normal infants **from birth to twelve months of age.**

As the infant grows older, therefore, it is only necessary to increase the **amount** of S. M. A.

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S. M. A. is to be used only under the direction of a physician. For sale by druggists.

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Cleveland, Ohio

THE WEST VIRGINIA

MEDICAL JOURNAL

Published by The West Virginia State Medical Association

VOL. XIX—No. 6 HUNTINGTON, W. VA. JUNE, 1924

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SUMMER COLDS

This is the time for summer colds to develop. Everyone knows how resistant they are to treatment and that disastrous complications may arise.

TRY CALCREOSE

CALCREOSE (Calcium Creosotate) is a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of creosote as used in the adjuvant treatment of tuberculosis, but differs from creosote in that it apparently does not have any untoward effect on the stomach.

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FIRST THOUGHT

BREAST MILK

SECOND THOUGHT

FRESH COW'S MILK

WATER AND

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FOR YOUR CONVENIENCE

Pamphlet on Breast Milk

INFANT DIET MATERIALS MEAD'S

Pamphlet on Dextri-Maltose

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is the index of lubricating value

LIQUID PETROLATUM SQUIBB is recognized as the most satisfactory of all intestinal lubricants, owing its superiority primarily to a high natural viscosity, not found in paraffin oils. This heavy Californian mineral oil is distinctly different in chemical composition from those usually marketed for intestinal use.

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"Excellent nutritional results in most cases"

Adapted to
Breast Milk

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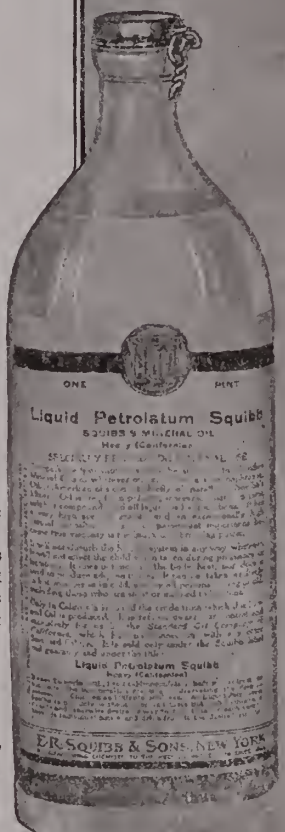

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makes possible the scientific administration of chlorine gas, in your office or the homes of your patients. No special rooms or preparations are needed. Just close the doors and windows of any room and set the "Chlorinometer" in operation.

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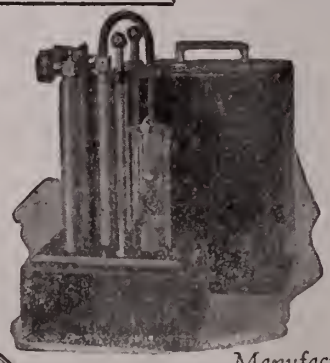
Diagnosis	No. of Cases	Cured		Improved		No Change	
		No.	%	No.	%	No.	%
Coryza	388	288	74 2	91	23 5	9	2 3
Acute laryngitis and pharyngitis	127	99	78 0	24	19.0	4	3.1
Acute bronchitis	241	192	80 0	47	19 5	2	0.5
Chronic rhinitis	106	33	31 1	41	38 6	32	30 2
Chronic bronchitis	47	34	72.3	12	25 5	1	2.1
Chronic laryngitis	2	2	100.0	...	...	...	...
Whooping cough	9	8	88.8	1	11 1	...	...
Influenza	11	9	81.8	2	18 1	...	...
	931	665	71 4	218	23 4	48	5 1



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General Medication in Tuberculosis

"CALCIUM—Certain it is, that patients, especially children, often improve with increased amounts of calcium in their food or as a medicament."

"CREOSOTE—It seems to be true that many patients have improved under its stimulant or irritant action in the stomach. It may also for a time improve digestion, and the patient often adds weight. During this period there is frequently a lessening of the bronchitis, and, therefore, a decreased expectoration, and with this decrease of the secondary (streptococcic) infection, there is likely to be less fever and, therefore, less sweating." A. M. A.: Handbook of Therapy, Ed. 6, p. 201.

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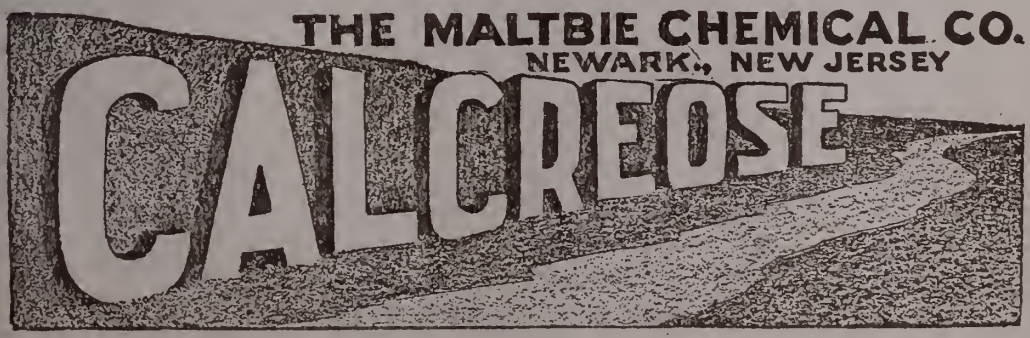

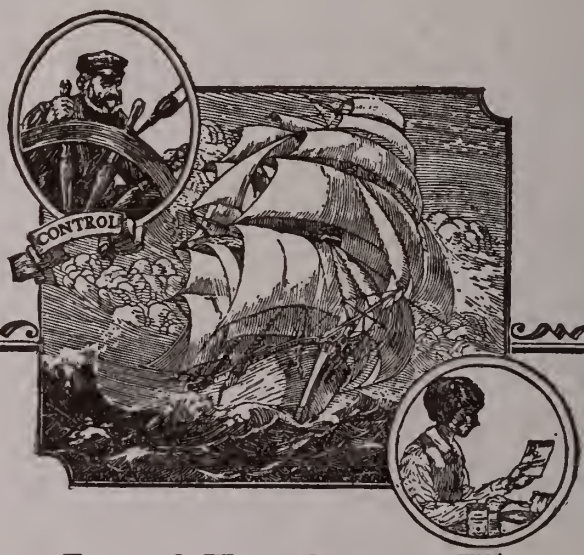

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The Baby who is under a Physician's Supervision is like a Ship in the Hands of an Experienced Captain.

The ship is responsive to every turn of the wheel—the crew obeys every command of the captain—the *captain controls* his ship.

When the doctor prescribes a feeding formula on his own prescription blank the mother obeys his instructions, and the baby is responsive to his diet. Mead's Infant Diet Materials have no directions on the package to interfere with the doctor's prescription—the *doctor controls* his infant feeding *throughout the entire feeding period.*

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Mead's Dextri-Maltose (Dextrins and Maltose) is assimilated by infants in greater amounts than other sugars before reaching the limit of tolerance and is less liable to cause digestive disturbances. Mead's Dextri-Maltose, cow's milk, and water, gives gratifying results in the majority of infants intrusted to the physician's care.

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Many physicians are finding protein milk helpful in their cases of summer diarrhoea. Protein milk made with Casec enables the mother to follow easily and accurately her physician's instructions—it will not clog the nipple. With Casec the percentage of protein can be governed by the physician at will.

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OF

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"Larosan is an agent of inestimable value in the management of the acid diarrheas of infancy"

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Indicated in hemophilia, and in all types of hemorrhage from small blood vessels; also in cases of surgical bleeding where ligation is unnecessary.

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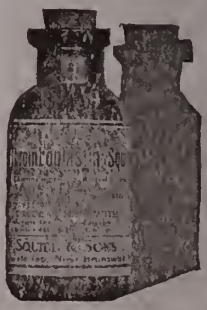

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"the easiest of all known diseases to prevent"

For Prevention and Treatment of SIMPLE GOITER

Iodostarine Chocolate Tablets

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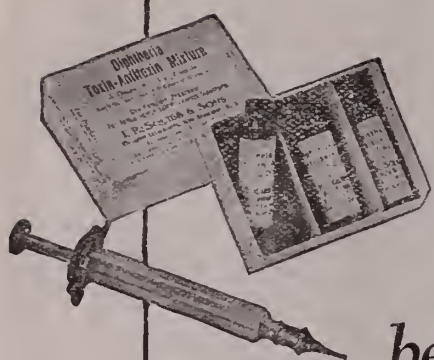

The development of the Schick Test and of Diphtheria Toxin-Antitoxin has made possible the eradication of Diphtheria as an epidemic disease.

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SCHICK TEST SQUIBB is a reliable diagnostic test for susceptibility to diphtheria. A safe guide in determining the need of Toxin-Antitoxin immunization.

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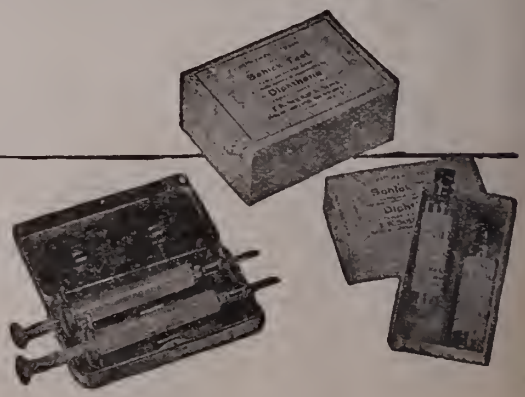

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CALCREOSE

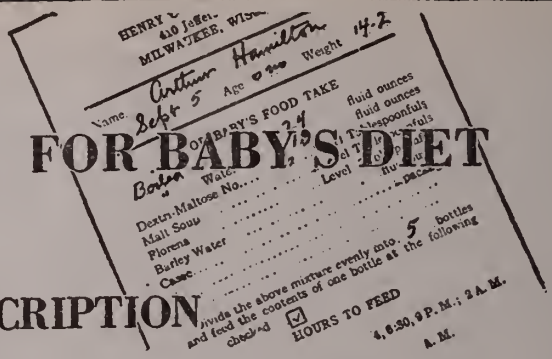
HOW TO GIVE CREOSOTE

POWDER
TABLETS
SOLUTION

IN bronchitis, especially the bronchitis accompanying pulmonary tuberculosis, and in other conditions in which it is desired to administer creosote, the irritant action of creosote in the stomach may be avoided by administering **CALCREOSE** (calcium creosotate) a mixture containing in loose chemical combination approximately equal weights of creosote and lime. It differs from creosote in that it apparently does not have any untoward effect on the stomach.

Samples of Tablets on Request

The MALTBIE CHEMICAL Co.
NEWARK, NEW JERSEY



FOR BABY'S DIET

A PRESCRIPTION

A written prescription is definite and cannot be forgotten.

It also carries with it the authority of the doctor himself.

It is individual—and its individuality shows that *thought* has been given to the baby's individual requirements—the mother is much more interested in her physician's judgment and much less apt to take cognizance of outside interference.

A prescription of

FRESH COW'S MILK, MEAD'S DEXTRI-MALTOSE AND WATER not only gives gratifying results for the average baby but also establishes confidence between the mother and the doctor.

MEAD'S DEXTRI-MALTOSE *can only be prescribed by the physician*—there are no directions on the package.

When DEXTRI-MALTOSE is used as the added carbohydrate of the baby's food the physician himself *controls* the feeding problem.

MEAD'S P & C COD LIVER OIL

A dependable cod liver oil of known origin. Exceptionally high in antirachitic, antiophthalmic and growth values. Mild in taste and well tolerated.

MEAD'S CASEC

For preparing a milk modification high in protein and correspondingly low in carbohydrate. For use in Fermentative Diarrhoeas and Marasmus.

MEAD JOHNSON AND COMPANY

EVANSVILLE, INDIANA, U. S. A.

NOTE: We will be glad to print, with the physician's name and address, a set of prescription blanks for use in his infant feeding cases.

MEAD JOHNSON & CO., Evansville, Ind.
Please send me "No Charge"

- ☐ A Set of Prescription Blanks
- ☐ Samples and Literature, Mead's P & C Cod Liver Oil
- ☐ Samples and Literature, Mead's Dextri-Maltose
- ☐ Samples and Literature, Mead's Casec

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CITY_____ STATE_____

HELP STAMP OUT GOITER

"the easiest of all known diseases to prevent"

For Prevention and Treatment of
SIMPLE GOITER

Iodostarine Chocolate Tablets

Accepted by the Council on Pharmacy and Chemistry of the American Medical Association (Jour. A. M. A., Dec. 15th, 1923)

THESE are the tablets which are being used so successfully by Public Health Authorities throughout the Great Goiter Belt in the campaigns for prophylaxis against Goiter now being carried on in many schools.

Each tablet is equivalent to 10 mgms. Iodine

DOSAGE recommended by authorities:

FOR PREVENTION OF GOITER:
One tablet once a week during school years, up to 16 years of age.

FOR TREATMENT OF GOITER:
One tablet daily for 30 days, during alternate months.

These tablets do not contain either Sodium or Potassium Iodide, both of which are unstable and eventually decompose, throwing off free iodine.

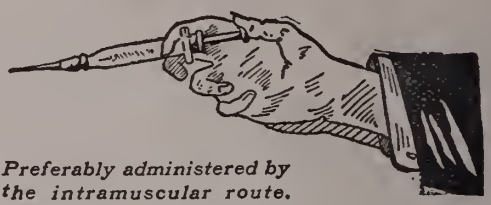
SUPPLIED IN BOXES OF 50 TABLETS

Goiter prevention with Iodostarine Chocolate tablets means: Exact dosage — perfect control of cases— no irritation to stomach as so often follows administration of sodium iodide or potassium iodide—palatability. Reports from the many districts using Iodostarine Chocolate tablets invariably state that the children take the tablets without protest—they like them.

Manufactured *only* by

The HOFFMANN-LA ROCHE CHEMICAL WORKS
NEW YORK CITY

Literature on Goiter Prevention and Treatment on Application



Preferably administered by the intramuscular route.

Sulpharsphenamine SQUIBB

Manufactured as developed by Professor Voegtlin and colleagues of the United States Public Health Service.

Least toxic of the Arsphenamines
20% more arsenic than Neoarsphenamine
More stable than Neoarsphenamine

SULPHARSPHENAMINE by the intramuscular route has proved quite as effective therapeutically as arsphenamine and neoarsphenamine from the standpoint of spirillicidal action and of effect on the blood and spinal fluid Wassermann reaction. There is evidence of superiority over the older arsphenamines in the treatment of neurosyphilis, and distinct evidence of superiority to neoarsphenamine intravenously in all aspects of syphilis.

(Stokes and Behn, Jour. A.M.A., July 26, 1924, p. 245.)

RELIABILITY
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TACKS

THE WEST VIRGINIA

MEDICAL JOURNAL

Published by The West Virginia State Medical Association

VOL. XIX—No. 11 HUNTINGTON, W. VA. NOVEMBER, 1924

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CALCREOSE

LIBRARY COLLEGE OF PHYSICIANS OF PHILADELPHIA

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SOLUTION

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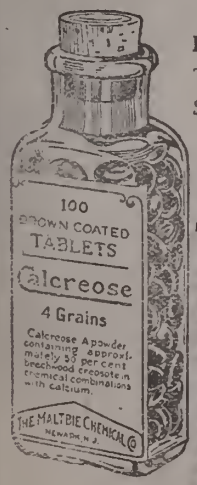

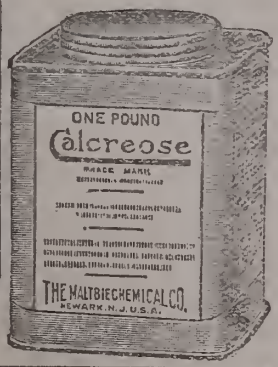

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NEWARK, NEW JERSEY

THE CHIEF REASON

FOR THE PHYSICIAN'S FEEDING THE BABY IS TO INSURE NORMAL HEALTHY GROWTH

COW'S MILK MODIFICATIONS seem at present to be the safest and most adaptable food for the artificially fed infant.

Diluted cow's milk, with an added carbohydrate, meets the nutritional demands of a great majority of babies.

DEXTRI-MALTOSE, in addition to being the most easily assimilated form of carbohydrate, is marketed to the laity without directions.

The only manner in which instructions reach the mother is through her doctor. The physician, then, CONTROLS his infant feeding cases.

TO BE ON THE SAFE SIDE

As a prophylactic against Scurvy, Physicians prescribe orange juice.

To insure against Rickets, an extremely potent Cod Liver Oil is invaluable.

MEAD'S CERTIFIED COD LIVER OIL

A dependable Cod Liver Oil of known potency, biologically tested for its antirachitic value.

MEAD'S CERTIFIED COD LIVER OIL is of such potency that sufficient quantities, both to cure and prevent rickets, can be added directly to the Feeding Formula without upsetting the fat proportions of the diet or causing indigestion in the baby.

(*Literature and liberal samples of MEAD'S CERTIFIED COD LIVER OIL sent at the Physician's request.*)

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GOITER—
and IODOSTARINE

When you prescribe Iodostarine Tablets for the prevention or treatment of simple goiter, you are using a product which has the following IN ITS FAVOR:

1. An Organic Iodide
2. Very slow absorption and elimination—well suited for this deficiency disease
3. Stability
4. Exact dosage
5. Perfect control of cases
6. No irritation to stomach
7. High palatability
8. Used by Public Health Authorities
9. The reputation of the makers

These are the tablets which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association and adjudged worthy of inclusion in New and Non-official Remedies.

Boxes of 50 tablets, each tablet equivalent to 10 mgms. Iodine

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Literature on Goiter Prevention and Treatment on Application

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The Hoffmann-La Roche Chemical Works, New York
Makers of Medicines of Rare Quality

DIPHTHERIA TOXIN-ANTITOXIN SQUIBB

Susceptibility to diphtheria is at its maximum in infants of about one year of age. Beginning at this time, immunity slowly but steadily develops, until in adult life, immunity is the rule in the majority.

As age and immunity increase, the amount of diphtheria toxin required to produce active immunity against diphtheria becomes less and less. As the quantity of toxin required is lessened, the possibility of protein reaction occurring, though slight, is increased.

Dr. Park and his associates of the Research Laboratory, N. Y. C. Department of Health, have demonstrated that a mixture containing only one-thirtieth of the amount formerly used, is absolutely effective in immunizing, regardless of age. The immunizing value is not lessened for the reason that with a reduction of the amount of toxin, the antitoxin is also reduced, leaving the proportion of free toxin unchanged. In other words, the new formula retains the immunizing value of the old, but reduces the possibility of protein reaction to a minimum.

This improved formula is now available to you under the Squibb label, which insures its reliability. It is marketed by the Squibb Biological Laboratories under the title "DIPHTHERIA TOXIN-ANTITOXIN MIXTURE SQUIBB" (New Formula).

Specify "Squibb's New Formula T. A. Mixture"

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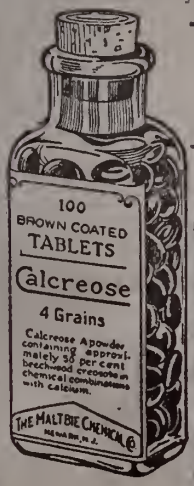
CALCIUM AND TUBERCULOSIS



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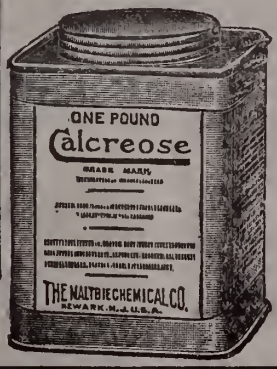
CALCIUM starvation has been suggested by phthisiologists as a factor in the etiology of pulmonary tuberculosis. By prescribing CALCREOSE some of the needed calcium may be supplied.



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